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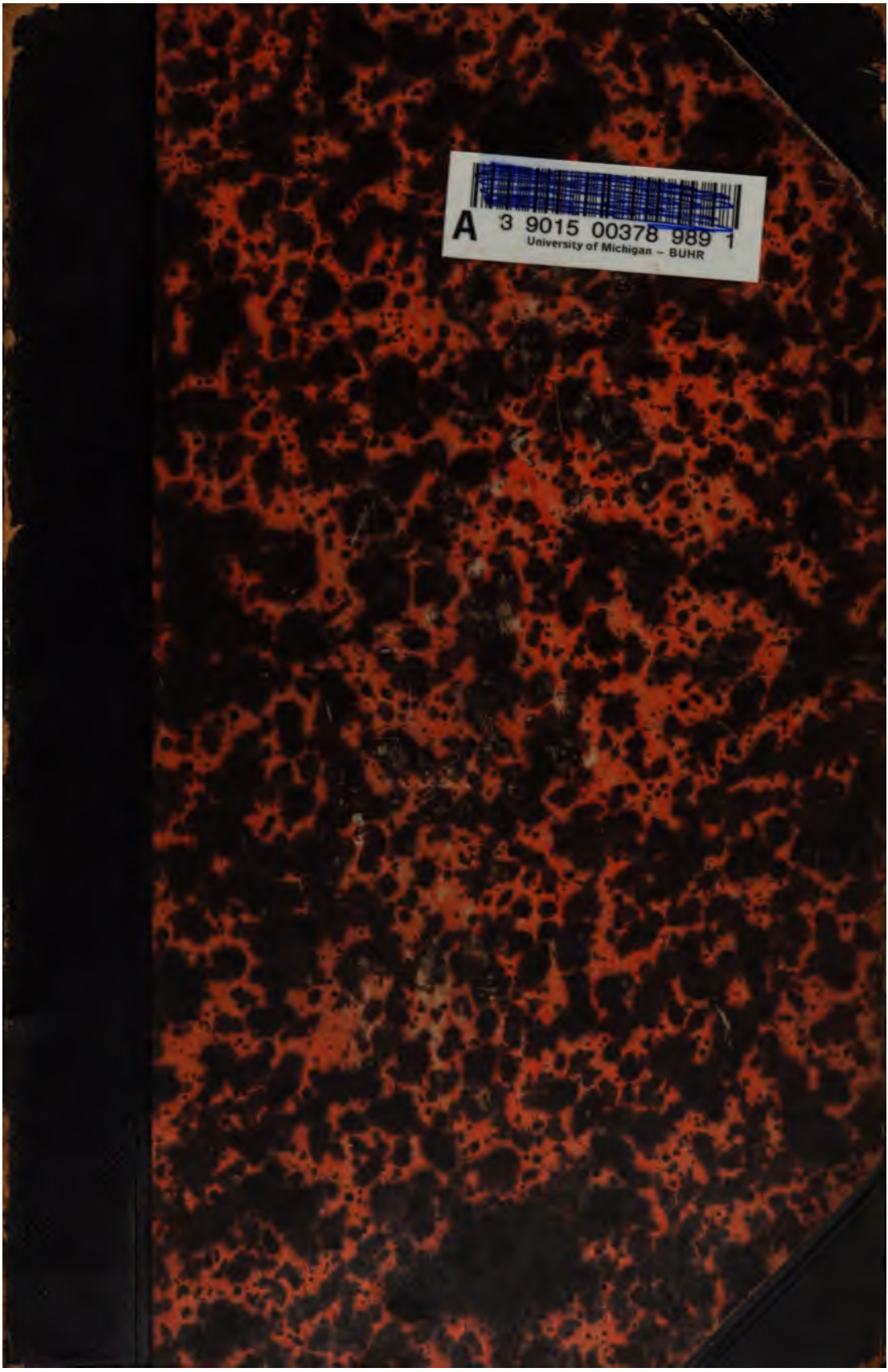
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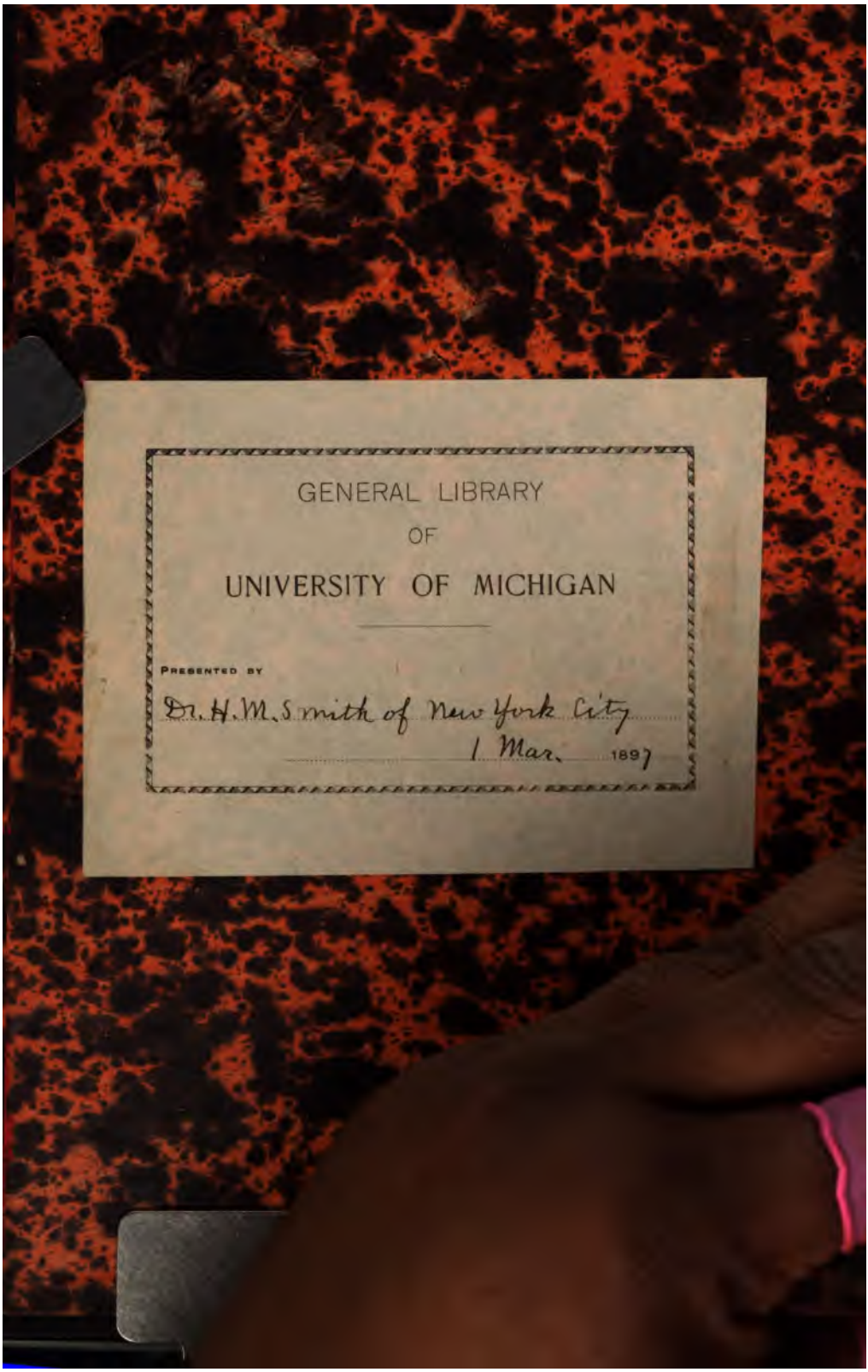
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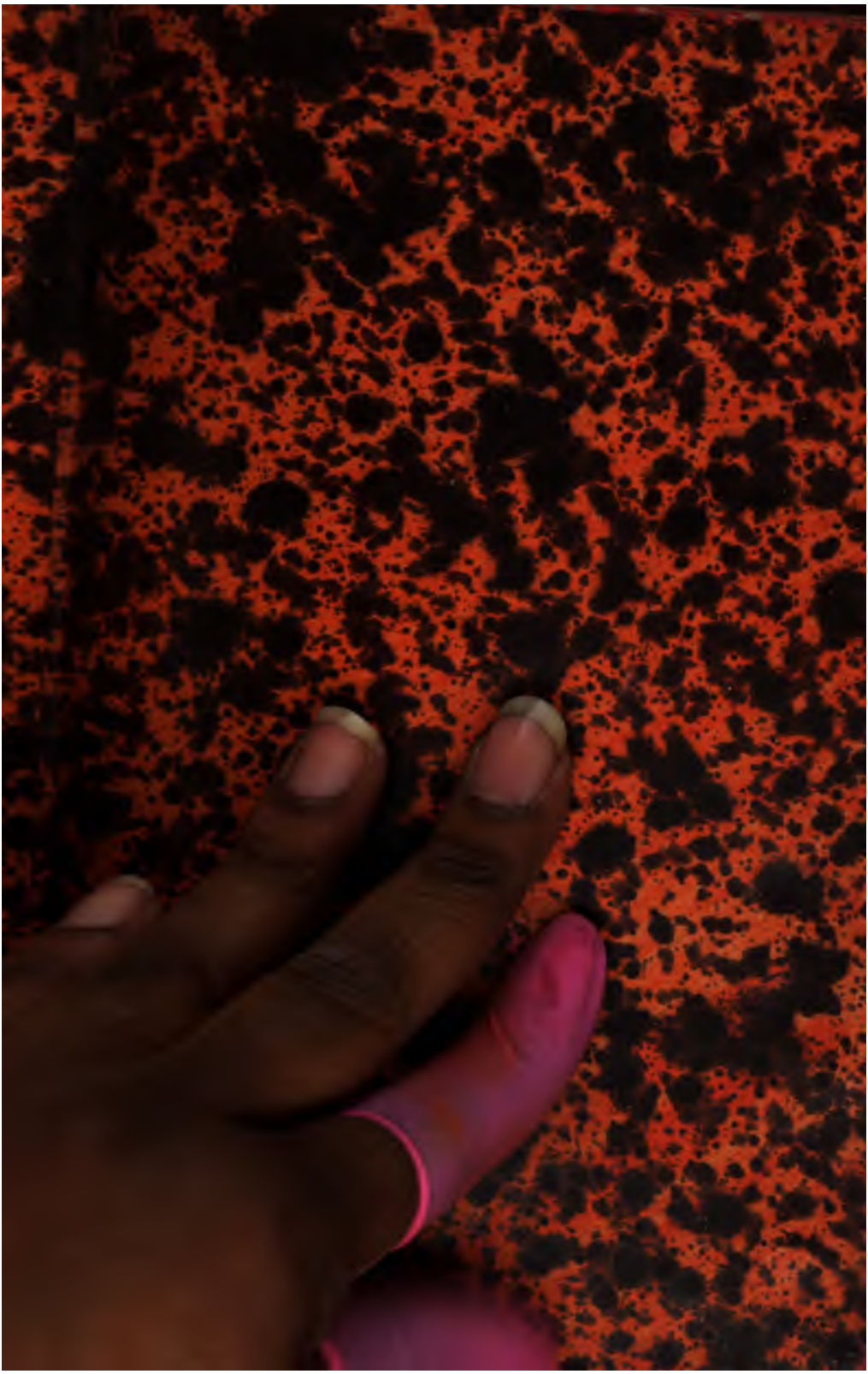
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SYPHILOGRAPHY AND DERMATOLOGY.

DEVOTED TO THE CONSIDERATION AND TREATMENT OF

VENEREAL AND SKIN DISEASES.

EDITED BY

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NOTE ON A DIAGNOSTIC SIGN OF PHTHEIRIASIS.

BY TILBURY FOX, M.D., LOND., F.R.C.P.,

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I IMAGINE that American dermatologists are agreed that Willan's prurigo, in its three varieties, must be split up into two distinct diseases—prurigo and phtheiriasis, or, to use a homely phrase, lousiness of the body.

By prurigo I mean a disease characterized by the development of certain papulæ as *primary phenomena*, and attended with considerable burning, itching, and the like, by more or less pigmentation, by mal-nutrition of the skin, varying in degree in different cases, and also in marked instances of the disease by cachectic condition of the general health. The scratching practised may induce follicular congestion, eczema, and the like. This prurigo, which has nothing to do with the presence of pediculi, I have seen mostly in cooks who have been greatly exposed to the fire; it varies in severity from a phase which answers in general features to Willan's prurigo mitis, to the exaggerated condition of things found in prurigo, as described by Hebra.

By phtheiriasis I mean a disease due directly to the attack of pediculi upon the body. The pediculi induce a pathognomonic lesion, and excite irritation, to relieve which scratching is practised. The scratching sets up follicular irritation, the

scratched follicles constituting "pruriginous papules," as generally described, *i.e.*, papules with a small scale of blood at the apex, and not only follicular irritation, but ecthyma, eczema, urticaria, etc. The disease, therefore, in my opinion, should be described as consisting of a pathognomonic lesion, and secondary symptoms due to the irritation set up and the scratching practised by the patient.

This phtheiriasis occurs at almost any age; but is generally observed in the elderly and old, and constitutes what is ordinarily termed "prurigo senilis."

I have so far cleared the ground by defining what I mean by prurigo and phtheiriasis respectively for the discussion of the special point I want to notice, viz., the nature of the pathognomonic lesion of phtheiriasis.

It is some time since I called attention in England to this matter, and further experience has shown me its great practical importance.

It is generally, I may say universally, supposed that pediculi bite. This is altogether a mistake. The pediculus has, as shown by Schjödte (Naturhistorisk Tidsskrift, ser. 3, vol. iii., Copenhagen, 1864, and Annals of Natural History, vol. i., 1866), a species of sucking apparatus, and not a mouth with mandibles. Schjödte took lice and starved them; he then put them on his hand. He tells us that, "on their feeling the warmth of the skin the antennæ began to oscillate with joy, and the pediculus stretched all its six legs out complacently from the body; then it raised itself on its legs, going a few steps, seeking and feeling its way with its antennæ. Presently, as seen with a magnifier, the louse drew up its legs, arched its beak, and bent its head downward, projecting forward and drawing back through the fore end of the head a small dark, narrow organ; at last it stood still, with the point of the head firmly abutted against the skin. Now, in watching the louse, blood was seen to appear between the eyes in a little space at the top of the head, and alternate contraction and relaxation occur of some dilatation here, the blood passing on to the intestines. If the head be sharply cut off just in front of the eyes, we can discover the naustellum, which is rapidly retracted, should the pediculus,

however, be taken off the skin alive." This is Prof. Schjödte's representation of the anatomy of the pediculus.

I have given the figure elsewhere, bu think it sufficiently important to repro duce it here. It will be seen that the base of the protruded sucker, which is retracted within the head of the pediculus when the latter is alive, is furnished with a set of hooks by which the parasite holds on.

This very brief description of the anatomy of the pediculus will enable the reader to understand more readily the lesion I am about to describe. The sucker is put into a follicle, and blood is sucked away. The follicle is slightly dilated by the act of sucking, and when the sucker is withdrawn blood "wells up" and fills the follicle, producing a minute, at first bright red speck, which soon darkens, the size of a pin point, or that of the dot over the letter i in the type of this journal, or slightly larger, not raised, not removable by pressure. This minute hemorrhagic speck, if carefully examined, is seen to be produced of dried blood, in the somewhat dilated follicle, whose opening often looks like (*i. e.*, if the pediculus has recently entered it with its sucker) a little cupped depression. Presently the healing process restores the follicle to its normal size and state, and only a fine, very minute blood scale remains, which falls off, or can be picked off, leaving behind no sign of mischief.

These minute specks are quite distinct from scratched follicles, which are larger,



FIG. 1.

STRUCTURE OF MOUTH OF PEDICULUS VESTIMENTI.

a. The top of the head.
b. Bands of chitine.
c. Hinder part of lower lip.
d. The protruding part of lower lip, or sucker.
e. The hooks.
f. The tube formed by the apposition of the representation of the jaws.
g. Blood follicles.

raised to sight and touch, and surrounded by an irregularly shaped excoriation and large blood scales.

Now I am perfectly confident that the minute hemorrhagic-looking specks, the size as I have said of a small dot placed over an i in smallish type, are produced by the welling up of blood into the follicles after the withdrawal of the sucker of the pediculi, and by nothing else. Hence, I affirm, that they are pathognomonic of the attack of pediculi as much as the acarian furrow is of the acarus. I put the matter in this way: The production of minute traumatic hemorrhagic-like specks, not the result of any alteration in pre-existing papules or excoriations, and not dependent upon scratching, is the essential lesion and the peculiar effect induced by the attack of pediculi, and it is pathognomonic of phtheiriasis.

I commend this matter of, as I believe, most practical application, to my confrères in America, who are doing most excellent work in Dermatology, and in such a thoroughly scientific spirit, to prove me right or wrong. I will only say that I hope critics will really study the matter carefully before they come to a decision, since it is not a difficult matter to confound the pathognomonic sign of phtheiriasis with minute excoriations and scratched follicles, which have become hyperæmic secondarily as the result of irritation and scratching. When a patient is attacked by pediculi in abundance, the little specks to which I have referred stud the surface in abundance, and then we readily notice *how perfectly uniform in size and appearance they all are*, which cannot be said of excoriations or scratched inflamed follicles.

I am in the habit, where I cannot detect pediculi in clothes, of treating cases in which the "hemorrhagic specks" occur as cases of phtheiriasis, and with eminent success. In fact, I now never care to hunt in the clothes for pediculi, save for teaching purposes. The recognition of the lesion I have described as pathognomonic of phtheiriasis throws a new light on many cases of children and young persons who are supposed to be suffering from "pruriginous eruptions" and "lichen urticatus," though, of course, the latter disease is a distinct and substantive malady. I am sure many cases of phtheiriasis are often mistaken for it.

CLINICAL OBSERVATIONS ON THE DEMENTIA AND THE HEMIPLEGIA OF SYPHILIS.

BY M. H. HENRY, M.D.,

Surgeon to the New York Dispensary—Department of Venereal and Skin Diseases.

I CONTRIBUTE the two following cases of disease of the brain because they illustrate, beyond any possibility of doubt, their origin in syphilis. There is a growing tendency to attribute to syphilis obscure diseases of the brain or nerve-centres, for no other or better reasons than that they are obscure, that the patient at some period of his life has had venereal disease, or that he has been benefited more or less by the use of the iodide of potassium.

The visceral lesions of syphilis have not yet been studied and observed with the same exactness and discrimination as shown in many other departments of medicine; nor has there, until recently, been displayed any earnest effort to throw light on this branch of medicine on the part of those whose opportunities have been ample for special observation. In the present state of our knowledge of the phenomena of syphilis involving the brain, I think very little will be gained by any attempt to draw conclusions in support of any theory or system of practice. What are most wanted now, and what will best serve to bring order out of the chaos of ideas that are afloat regarding the etiology and pathology of brain syphilis, are good, honest, painstaking clinical observers. When, by and by, the results of such labor are collected and massed we may be in a position to offer propositions that will serve a useful and scientific purpose.

Most of the authors who have made any special observations, and written on the disturbances of the intellect due to syphilis, have spoken of the lesion under the generic term of mental alienation. By Dementia * is generally understood "that condition

* *Index of Diseases*, Tanner, p. 144.

in which weakness of intellect, induced by accident or age, is the prominent feature—mind altogether feeble; ideas confused, vague, wandering; memory much impaired. Patients ignorant of time, place, quantity, property, etc.; forget immediately what they have just seen or heard. Manners undecided, childish, and silly. The demented have neither affections nor aversions, nor care for anything. Paroxysms of restlessness and excitement. Little or no control over bladder and rectum." With this view I have selected the term dementia because it conveys, I think, a more correct idea of the intellectual condition of the patients whose cases I have to relate.

CASE I.—Mr. ——, a gentleman residing in New York, twenty-five years of age, of good size, and apparently in good general condition, consulted me on the 25th of September, 1868. He was suffering at the time from a severe pustular syphilide, mainly about the forehead and face, as well as from mucous patches about the tongue and fauces. In the early part of May, 1868, he contracted a chancre, which, according to his own statement, did not make its appearance until five weeks after coitus. He consulted a surgeon of this city, who treated the sore very lightly, assuring him that it would be all healed in a few days, and he would have no further trouble with it. Up to this time he had been in excellent health, living a great portion of the year in the country. The chancre did not heal rapidly, and he suffered from constitutional disturbance and mental anxiety. About the middle of August, 1868, he noticed a rash all over his body, and, being annoyed with his medical attendant, he decided not to pursue any treatment. In the course of two weeks this disappeared, but was followed, about two weeks after, by the pustular eruption and sore throat. He was placed on a mercurial course of treatment, taking half a grain of the protoiodide of mercury with one grain of the extract of hyoscyamus, morning and evening, and his throat treated with a strong solution of nitrate of silver in the form of spray. Under this treatment his throat soon improved and the pustular eruption disappeared. He spent the winter of 1868–1869 in Texas, and enjoyed excellent health. I saw nothing more of him until July 11th, 1869, when he complained of an irritable condition of his throat and fauces. He was suffering from a slight attack of laryngitis, which yielded to a mild course of treatment. Being an excessive smoker, I forbade the use of tobacco, and he soon got quite well. In the early part of the following December he called on me, and was apparently in splendid condition. A few days after he sailed for Cuba, where he intended to spend the winter with some friends. He remained on the island until May 22d, 1870, when he sailed for Southampton. In all his letters

to his friends in New York he wrote that he was enjoying perfect health. Those who were with him at this time confirm his statements. He wrote to his father on some business matters the day that he sailed, and was perfectly well. He arrived at Southampton on the morning of June 6th, took the train to London, and went directly to his sister's house.

Dr. Edward Meryon, of London, was called to see him, and furnished the following account of the case while under his care:

"Mr. —— arrived in London, from Cuba, on Monday, the 6th of June, and I was summoned to him on the morning of Wednesday, the 8th, in consequence of mental incoherence, of which he was then the subject.

"He complained of no pain, and all that could be elicited from him was, that 'he had had a cold and comfortless voyage; that he had kept himself very much to his cabin; that his bowels had been confined for well nigh a month, but that he had been very well.' His latter assertion was so far confirmed by a despatch from the captain of the ship, as that he had not been under medical care during the voyage, but that on landing at Southampton he excited notice by not answering questions.

"From letters which he wrote immediately before sailing, and from the observation of Mr. R. F., there can be no doubt that he was quite well when he left Cuba.

"He managed to find his way to his sister's house in London, which, I think, he would scarcely have been able to do when I first saw him. He was then in a state of restless stupor, with a hot skin, quick, weak pulse, injected conjunctivæ, widely dilated pupils, not readily answering to light, and he was very deaf.

"Supposing that the obviously congested brain and disturbed circulation might, in some degree, depend on a mechanical cause from accumulated fæces, I gave him a brisk calomel purge, and ordered a mustard poultice to be applied to the nape of the neck.

"On Thursday, the 9th, the bowels were thoroughly emptied, and the pupils contracted more to the influence of light, but the disturbed intellect continued the same; he was incessantly intent on going out — on one occasion with a purpose—to his tailor, but generally with a vague current of ideas, and he was very impatient of control, or of being followed or accompanied.

"On Friday, the 10th, in consultation with Dr. Burrows, notwithstanding the averment of a cold voyage, we concluded that he must have had sunstroke. All the cerebral symptoms were unchanged, and we decided on repeating the calomel purgative pills, and on applying a large blister to the nape of the neck.

"On Saturday, the 11th, the pills acted thoroughly, and the blister rose well, but every symptom remained unchanged. In consequence of wakefulness, we gave him a third of a grain of the hydrochlorate of morphia at bedtime.

"Sunday, the 12th.—The morphia had little or no effect—his mind still wandering, and in the same restless spirit. I ordered a draught containing ʒ i. of the hydrate of chloral, to be taken at night.

"Monday, the 13th.—Had a little sleep, but not much; bowels acted spontaneously. Ordered ʒ ss. of chloral at bedtime.

"Tuesday, the 14th.—Slept all night, and during the greater part of the day. In the morning he complained of being cold, and his feet and legs were felt to be cold. His mind became suddenly quiescent. From being constantly restless he became suddenly impassive; his sense of hearing manifestly improved, but the mind still continued incoherent, although he often answered questions correctly.

"Wednesday, the 15th.—I ordered ʒ i. of the syrup of the hypophosphite of iron three times a day.

"On the 16th, he had an evacuation from the bowels, which he passed unconsciously in bed, and the urine also passed in bed, apparently unconsciously.

"On the 17th I added five minims of the liq. strychniæ (one twenty-fifth of a grain) to be taken with each dose of the syrup; but it appeared to give a propulsive power to the muscular coat of the large intestines without affecting the sphincter muscles, for on Saturday, the 19th, he passed three evacuations in bed. I therefore withdrew the strychnia from the syrup, after which the bowels continued quiet until Wednesday, when they again emptied themselves under the influence of two doses of the liq. strychniæ; and again on Saturday, the 25th, with one dose.

"During all this time the mind continued in about the same state—one day appearing to be improved, another the reverse;—so much so, that Dr. Burrows, who had not the advantage of watching him daily, declared, on the 30th, that an extensive part of the brain must be disorganized; and on Sunday (July 3d) he fancied that there might be only effusion into the ventricles, and that absorption might be affected.

"On Monday, the 6th of July, Dr. Smith, of New York, thoroughly examined him, bodily and mentally, but, alas! could throw no new light on the case.

"From the 7th (July) we have added seven grains of the iodide of potassium to two of the doses of the syrup daily—the third dose of the syrup is given alone—but with no marked alleviation of symptoms; the iodide to be discontinued during the voyage home.

"From all that I have been able to observe, and from the persistence of the mental phenomena, I have arrived at the conclusion that there is structural change in the cerebral substance round about the optic thalami, extending towards the surface of the cerebrum, and close upon the tractus opticus, for every now and then the sight is obviously affected. Were there disease more in front, and implicating the corpora striata, motion would doubtless be affected. If in the cerebellum, either there would be

loss of co-ordination of muscular motion or some disturbance of the genital organs, or sickness, of which none exist. If about the crura cerebri, the muscles of the eyes would be affected. If in or about the pons varolii, some facial disturbance would present itself; and if in the medulla oblongata, some affection of speech, deglutition, or respiration. That one portion of the brain which I have named remains.

"July 26th.—The day after my report of Mr. —— was written, I observed such a manifest improvement that, although a cabin was secured for his voyage to America, I advised a postponement of his return for a short time, lest any unavoidable disturbance should interfere with the process of repair which appeared to have commenced. Since that time the change for the better has been continuously progressing; and although the consciousness of water existing in the bladder, and of excrementitious matter in the bowels is still defective, yet are there indications that such consciousness is returning, and the mental faculties are obviously improved. Under such circumstances I can only suppose that there has been effusion into the lateral ventricles of the brain, that the optic thalami, the hippocampi majores, and the surrounding brain substance have suffered from pressure, and that the process of absorption is gradually going on. Such pressure will account for all the symptoms which have occurred, and the improvement justifies the hope that the brain is clearing itself, and that, eventually, Mr. —— may regain his former healthy condition."

For two weeks before leaving England he was able to dress and sit up all day. He went regularly to his meals and was able to assist himself at the table. He walked, and rode, and even made the journey to Liverpool without any inconvenience. On the 27th of July he sailed for New York. During the voyage he seemed to improve daily, both bodily and mentally. He arrived in New York on the 8th of August. The improvement seemed to continue until about the 1st of September. During the greater part of August he rode and walked every day, played billiards and cards, and enjoyed his food. His exact condition in the latter part of August, as far as I learn from his father, was this:—"He was not entirely steady on his legs. His memory was weak and imperfect. At times he was quite incoherent. His sight was so imperfect that he could not read." About the 1st of September he began to fail badly, and in a few days became so helpless that he was forced to remain in bed. From about the 20th of July until the 4th of September, with one or two exceptions, he had not had any involuntary passages from the bowels or bladder. At this time my friend Dr. D. Tilden Brown was called to see the patient, and on hearing the history of the case suggested that I should be consulted.

On the 4th of September I first saw him after his return from Europe. Although I had known him very well indeed, he did not recognize me. In response to my questions he answered incoherently and foreign to my interrogatory. He seemed to have lost his mind entirely. He stood up with

great difficulty, and as he attempted to walk his knees gave way and he swayed from one side to the other. He showed a fear of falling, and only maintained the erect posture with a great effort. As he stepped forward he was unable to lift his feet, he dragged them along. He was as stout as when I saw him last, but his flesh was "flabby." There was paralysis of the whole of the right side of the face, with considerable distortion. The right cheek bulged out, and the mouth was constantly open; the tongue turned to the right and hung forward. There was mydriasis of both eyes. The left pupil responded to the influence of light; the right did not in the slightest degree. There was paralysis of right oculo-motoris nerve, with complete ptosis of the right eyelid. His appetite was bad, and deglutition very imperfect. He retained food in his mouth for hours; although unable to swallow, it did not occur to him to remove it from his mouth. His sight was very bad, he could not read or even tell the letters of large print. His whole look and manner gave the impression that he had entirely lost his mind, in fact suffering from all the symptoms and many indescribable features that are known to syphilographers in the term *l'hébétude*. He was at this time in the habit of passing his fæces and voiding his urine involuntarily. I ordered a generous diet, a little wine, and thirty grains of the iodide of potassium to be given three times during the day, and thirty grains of the bromide of potassium to be given at bedtime. I also insisted on the necessity of the greatest care of his person and general wants.

On September 6th there was not the slightest change in his condition. Increased the amount of potassium to four thirty-grain doses daily. Continued the bromide at night.

September 7th.—There seemed to be a little less paralysis of the face and less fall of the right eyelid. His speech and articulation was a little better.

September 8th.—Was a little better; still voiding his urine involuntarily. On examination found it 1023; no albumen.

September 9th.—Dr. W. H. Van Buren saw the case with me, and it was agreed to increase the amount of iodide of potassium to five doses daily. His appetite was improved, and he slept much better.

September 11th.—The only noticeable change was that he was a little more cheerful. Since he slept well I discontinued the bromide of potassium at night, and added another dose of the iodide—making one hundred and eighty grains of the potassium daily in six doses.

September 12th.—He complained of a little difficulty in digesting his food. Ordered five grains of pepsine and five grains of bismuth before each meal.

September 13th.—Much better in general appearance. Face decidedly improved. Eats well and sleeps well. Digestion much better.

September 14th.—Still improving. Answered questions more intelli-

gently; conversed in the morning with comparative ease. Has no control over the bladder. Sleeps well and eats well. No ill effects of any kind from the use of the iodide of potassium. Increased the amount to seven doses—making two hundred and fifty grains daily.

September 17th.—Facial paralysis much less. Less deformity about the mouth. Improved in intelligence. General condition much better. Ordered the medicine to be taken every two hours—taking two hundred and fifty grains of the iodide daily.

September 20th.—Sits up all day. Has no control over the bladder. In general appearance is much improved. Answered questions more intelligently than he had done for some months. Taking two hundred and eighty grains of the iodide of potassium daily.

September 21st.—Went out for a ride. Treatment continued.

September 26th.—Very much improved, mentally and physically. Rides out every day. Walks better. Can read slowly. Mydriasis of left eye entirely disappeared. Right eye a little better. Treatment continued. Examination of urine showed slight deposit of crystals of oxalate of lime, Spec. grav. 1020.

October 3d.—There being little or no improvement during the last three days, and as he showed great tolerance of the iodide, I increased it so that he is taking three hundred grains daily. From this time until October 19th he was gradually improving. Walks out every day. Eats well and sleeps well. Reads better, and sits up in the evening, and plays cards, such as whist and cribbage, well. Has control over his bladder, and shows a great improvement in his general intelligence. His sight being still very much impaired (October 19th), my friend Dr. H. D. Noyes was kind enough to see him with me, and the following is the result of his examination:

"There is divergent strabismus, but the attempt to investigate the condition of the muscles with any care is impossible, on account of the great amblyopia and the clouded state of his mind. He answers questions very slowly, and his apprehension is extremely limited. His face is pale and has a vacant expression.

"The right pupil is slightly dilated, but contracts when the eyes attempt to converge. The left pupil normal.

"Vision in each eye $\frac{20}{200}$. Reads Snellen 5 at eight inches. Visual fields could not be defined. Color perception not tested.

"By ophthalmoscope, right eye: media clear, emmetropia; optic nerve unnaturally white, border sharply defined, and heavily marked with pigment; its tissue opaque; its surface not elevated; the veins large, arteries of usual size; deficiency of small vessels.

"The retina exhibits a glistening, clouded infiltration, which makes it appear like watered silk. The exudation occupies the depth of the membrane, and extends over all the central portions of eye-ground. There are no apoplexies nor spots of exudation.

"In the left eye the media are clear and refraction emmetropic. The optic nerve is congested, looks as much too red as the other optic nerve too white. Arteries and veins are of the usual size and appearance; the retina hazy and infiltrated as in the other eye.

"The lesion in this case is evidently neuroretinitis, and the appearances favor the presumption of a process coming down from the brain by continuity of tissue, not the occurrence of strangulation of the head of the optic nerves from pressure on the return circulation. The absence of decided elevation, and the sharp limitation of the right optic disc, are arguments for this opinion. In the right nerve the acute inflammatory stage had passed, and there remain the connective tissue and atrophic degeneration of nerve-fibres. This would imply that the left eye was attacked after the right, or may have been more severely inflamed, because in it the symptoms of hyperæmia are decided. The lesions seen by the ophthalmoscope stand in full accord with the other symptoms, indicating serious brain trouble."

October 24th.—Sight very much improved. Can read the large print of newspapers tolerably well. Walks much better, and when standing is much steadier in his knees; related plainly and without hesitancy what he had done the day before. Still suffers from incontinence of urine.

October 28th.—Improving daily. Looks decidedly better. General perceptive qualities much more acute. Can walk half a mile without fatigue. Memory much better. Converses rationally on ordinary topics. Realizes his condition perfectly. His appetite is good. Has no desire to sleep during the day, but sleeps well during the night. Continues to take the full amount of the iodide of potassium daily (300 grains), as well as the quinine and iron.

November 1st.—Gaining in strength. Treatment continued.

November 4th.—Called at my office; looks very well. Has lost almost entirely that dull vacant look. Memory still improving. General intelligence steadily returning. Walks a mile without fatigue. From this time he went on gradually improving; he spoke of his visit to Havana being like a dream. In the early part of January, 1871, he took very little of the iodide of potassium, and in February discontinued it entirely. In March he was, to use his own words, quite himself again, with this exception—his sight was still imperfect. He is able to walk to his father's office every morning, a distance of three miles, and walk up in the evening without feeling fatigue.

During the summer he spent a portion of his time in the country, and returned to the city, apparently as well as ever, November, 1871. The only difficulty from which he now suffered being his visual power and capacity, I again called on my friend Dr. Noyes, and availed myself of his skill and experience. The following is the result of his examination:—

"November 24th, 1871.—Mr. —— examined again. The right pupil, which was formerly dilated, is now of normal size and behavior, while the

left pupil is enlarged, although contractile. The movements of the globes are normal; does not have diplopia. Vision in each eye $\frac{1}{1}\frac{0}{0}$. Reads Snellen $1\frac{1}{2}$ at 5 inches, with each eye or with both.

"To the ophthalmoscope the right nerve appears pale and bluish white; edges a little indistinct; very deficient in small vessels. Arteries small, veins large, no pulsation. Left optic nerve, which thirteen months ago was congested, is now of a bluish white color, its border strongly defined and pigmented; has neither elevation nor depression. The small vessels in horizontal meridian very few. The adjacent retina clear, except above nerve is a glistening streak of connective tissue, and at the macula the retina has a glistening bluish or steel-colored reflex, as if due to connective tissue formation.

"The optic nerves, it is thus seen, have passed through the period of active inflammatory congestion to the state of white atrophy. Much of the nerve-tissue has survived the ordeal, and being now relieved of the inflammatory hyperæmia and accompanying infiltration, vision has advanced from $\frac{1}{10}$ to $\frac{1}{1}$."

Before making any remarks on the case that I have just related, it may, perhaps, be well to state that I heard of the condition of the patient, when in London, the day that his father sailed from New York to join him. Knowing that the father was not aware of the syphilitic history of the patient, I communicated the fact to him, and asked him to tell the physicians in London the general nature of the attack. Dr. Charles D. Smith, who was a fellow-passenger, visited the patient, and mentioned what I had said. After they had failed to discover any external evidence of his having suffered from syphilis, it was decided, "since it could do no harm," to give small doses of the iodide of potassium, five grains of which were administered three times daily. While the patient showed little or no improvement under the expectant and tonic treatment, under use of even this small quantity of the iodide of potassium a marked change for the better was soon manifested. On taking all the symptoms into consideration, I was led, and still believe that there was extensive and diffused gummy deposit within the arachnoid at the base of the brain, but mainly on the right side. From my own experience I am satisfied that, if larger quantities had been given at this time, the patient would have been spared the attack which followed his arrival in New York. I believe the older the syphilitic deposit, the greater the necessity

for the exhibition of an increased amount of the iodide. I have been somewhat surprised to find that, even at this time, there appears to be some fear shown by our friends on the other side of the Atlantic of the use of the large doses such as we are in the habit of using in this country, and this, too, since Sir Henry Thompson * published his own excellent conclusions. To derive the full benefit of the iodide where there is a large amount of gummy deposit, or any of the inveterate and intractable forms of the disease in the tertiary period, it must be given in large doses—indeed, I scarcely know the limit. Little fear need be entertained about producing iodism. I have never seen it in a person suffering from tertiary syphilis. In this case the patient took three hundred grains daily for more than eight weeks, and with the disappearance of the syphilitic symptoms, he gained steadily in his general health and in flesh. To obtain the best results in the use of the iodide, it should be taken thoroughly diluted—each dose in a small glass of water. If there is any nausea, a little compound tincture of bark, or an infusion of columbo, may be added. The drug is more readily and perfectly absorbed when taken in this way than when taken with only a small quantity of fluid.

The history of the case illustrates the syphilitic character of the disease. Following the constitutional manifestations, there were cerebral disturbance, indicated by mental derangement, incoherency, loss of memory; paralysis of third pair, shown by ptosis, external strabismus, mydriasis; paralysis of sphincters; loss of sight and marked lesions, revealed by the ophthalmoscope. The tertiary manifestations occurred two years after infection. In forming a diagnosis of the case I, of course, excluded sunstroke, alcoholic poisoning, or mild uremic poisoning, from the list of probable causes. In the first instance, the patient was not exposed to the sun, and the history of his attack is entirely opposed to any such conclusion. In the second instance, the patient was an exceedingly temperate man, and there was not the slightest indication of any delirium, or of any hallucinations, or of the prostration invariably associated with attacks

* *Lancet*, December 28, 1867.

of cerebral congestion following alcoholic excesses. The examination of the urine failed to detect any casts, and the entire absence of any puffiness of the face, or other dropsical effusion, dispelled the idea of a mild uremic poisoning.

CASE II.—Mr. ——, aged 45, consulted me first June 26, 1868. He gives the following history of his case: "Four years ago I contracted a chancre, and was attended by Dr. ——, of this city. It was very difficult, indeed, to heal up the ulcer. I had two buboes which suppurated. Up to that time I enjoyed excellent health. When my medical attendant found that it was difficult to heal the ulcer, he placed me under a mercurial course of treatment, which was kept until my gums were very much affected. About the time the buboes commenced to heal, so that I could get about, a rash appeared over my whole body. Some time after this I had another eruption, which he told me was a pustular form of the disease. I was under his care for this last eruption nearly six months. The ulcers were very obstinate, constantly recurring. At this time I took the iodide of potassium with syrup of sarsaparilla. I continued this treatment for some months. From that time until last fall (Nov., 1867) I was very careful not to expose myself to cold or any dissipation, and I managed to get along. I never felt perfectly well from the time I contracted the disease. It is very possible my mind has something to do with my distress, but I certainly never felt like myself after the disease manifested itself."

I have given thus far the history of his case in his own words. At the time he called on me he was suffering severely from the want of rest, and the irritation caused by the rupial ulcers, that literally covered his legs, feet, and portions of his arms. Both tibiæ showed large nodes, and he complained of severe neuralgic pains about the head and neck that increased at night. Although of good frame, and apparently well nourished, he was weak, and showed unmistakable evidence of an inveterate syhilitic cachexia. I placed him under the following treatment: Twenty grains of the iodide of potassium to be taken three times daily in an infusion of columbo, and five grains of the citrate of quinine and iron to be taken before each meal. Forty drops of McMun's elixir of opium to be taken at bedtime, and the strictest care taken to cleanse the ulcers morning and evening, dressing them with a little simple cerate after being sponged with a weak solution of the chloride of sodium. Under this treatment he showed, in the course of ten days, much improvement. His appetite was improved. He slept better, and the ulcers showed a better tendency to heal than they had done for some months.

July 12 (1868).—Very much improved. Finds it still necessary to use the opium at bedtime. Increased the iodide of potassium to four scruples daily.

July 24.—Not much better than when last seen. Increased the iodide of potassium to five scruples daily.

August 3d.—Much improved. The ulcers healing well, and bearing al-

together a much healthier aspect than they have done since he has been under my care. Eats well and sleeps well, having discontinued the use of opium at bedtime. The iodide of potassium and other general treatment continued.

September 1st.—Had continued the general treatment, and was improved in every particular. The ulcers had all healed up, and the cicatrices bore a good aspect. The nodes over the tibiæ had almost entirely disappeared. The quinine and iron was discontinued, and cod-liver oil ordered. One hundred grains of the iodide of potassium was still taken daily in five parts.

October 5th.—Feeling so well he had discontinued the use of the medicines for about ten days, and indulged freely in the use of spirituous liquors. When I saw him he was suffering from an attack of influenza and severe pains in all his bones and joints. New ulcers had appeared on his legs, and the good that had been accomplished during the past three months was entirely overcome by his dissipation and excesses of the last ten days. With appropriate treatment, good nursing, and a generous diet he soon recovered; but the ulcers were slow to heal. The treatment was continued. From this time he remained under my care until January, 1869. He was then doing well. During the year 1869 I attended him at intervals; but he had become very dissipated, and seldom followed any systematic course of treatment. I did not see him in 1870 until the 28th of April, when I went to him in Brooklyn. While visiting some friends he was taken suddenly ill, and becoming alarmed from his manner and loss of mind, I was sent for. I found him very much emaciated, with stupid expression of face, a difficulty in articulating his words, an entire loss of memory, and when addressed answering in a rambling and incoherent manner. Experienced a difficulty in raising his feet from the ground or maintaining the erect position. The functions were performed without any difficulty. I ordered the use of the iodide of potassium, one scruple to be taken four times daily, and increased to five or six times if he did not show improvement within one week. He was placed on a generous diet, with wine or milk punch. In one week he was so much improved that he went West, and there spent the summer.

On his return in October, he was very much improved in appearance, and promised to do well. He attended to his business, and seemed to be better off in every way than he had been for a long time. I did not attend him again until June 8, 1871. I was called to see him in the evening of that day, in consultation with Dr. Steele. From the doctor I learned that the night previous he had been drinking perhaps a little more than usual, although for some weeks before he had been very dissipated. He fell asleep on a lounge in the office of the hotel where he lived. About midnight his friends awoke him and insisted on his going to bed. In making the effort to raise him up it was found that he was paralyzed on the

right side, spoke but little, and then in an incoherent and rambling manner. He was placed in bed, when he soon fell into a heavy sleep which lasted for some hours. In the morning he spoke very indistinctly and with much difficulty. When I saw him in the evening no change had taken place; the whole right side of his face and extremities were paralyzed; there was ptosis of right eyelid, mydriasis, and divergent strabismus. There was no fever; temperature good. He was carefully nursed; his general wants strictly attended. He was ordered a diet of beef tea, weak milk punch, Vichy, and a scruple of the iodide of potassium to be taken every five hours in a glass of water.

June 9th.—No change in his condition; lies in an apathetic state; takes food and medicine; when spoken to answers with difficulty in an imperfect and rambling way. Ordered the iodide of potassium to be given every four hours.

June 10th.—No change of any consequence; slept fairly during the night; pulse good; had a movement from the bowels this morning; voids his urine (when told by the nurse) three or four times daily. Treatment continued.

June 11th.—Does not appear as well to-day; has grown more feeble.

June 12th.—Lies in a dozing condition; seldom moves, or attempts to utter a word, unless addressed by his attendant. Treatment continued.

June 13th.—Entirely unconscious; breathing normal; pulse 86; voided his urine this morning involuntarily; swallows with great difficulty.

June 14th.—No change, with this exception—his breathing is somewhat heavier and faster; respirations about 38 in the minute.

June 15th (morning).—Lying in a comatose condition; respiration 40 in the minute. At 10 in the evening he died.

Post-Mortem Examination.—June 16th, 1871.—The body having been placed on ice, a post-mortem examination was made fifteen hours after death. In this I was assisted by my friends, Drs. Briddon and R. W. Taylor. Rigor mortis well developed; upon the body are numerous cicatrices of syphilitic ulcers. Upon opening the head, found a gummy tumor of the integument of the scalp; upon each frontal bone were numerons minute holes, the results of previous inflammation which had not involved the dura mater. The convex surface of the brain appeared normal, but upon its under surface, including that portion which is situated in the middle cerebral fossa, the arachnoid was greatly thickened, and of a dirty chocolate color. This same appearance was seen slightly upon the lateral surface of the left side, but the condition was not as far advanced. Upon opening the fissure of Sylvius found a gummy tumor as large as a pea, which completely encircled the middle cerebral artery, and was prolonged in filaments over other minute arteries which sprang from the main trunk. The tumor was firm in consistence, and was attached by its outer surface to the brain-tissue on each side of it. The calibre of the artery was somewhat narrowed, and those springing from it were compressed to occlusion.

The heart, lungs, liver, spleen, and kidneys were examined, but showed no marked or appreciable pathological change.

THE MICROSCOPICAL EXAMINATION of the tumor was made by Dr. Taylor, and found to consist of round cells, some having nuclei, others no nuclei, but granular contents. They were of a diameter of about $\frac{1}{2000}$ of an inch. Mingled among these cells over the field was a large quantity of granular and fatty detritus, and here and there a few fusiform connective-tissue cells. These round cells were not as well defined as those of gummy tumors of the skin, but they preserved their contour much better than the cells of gummy tumors of the liver. The nuclei were present in about half the whole number, and were not of uniform size; in some they were about $\frac{1}{6000}$ of an inch, in others about $\frac{1}{6003}$ of an inch. The outer coat of the middle cerebral artery was rendered indistinct by this cellular deposit, which, however, had not invaded the middle or the inner coats. The portion of the tumor which was nearest the artery was composed mostly of these cells with some fibres of connective tissue; whereas portions taken from the periphery of the tumor were composed almost wholly of granular and fatty débris. The cortical portion of the brain in the immediate vicinity of the tumor, and slightly beyond it, was soft and readily broken down, and, under the microscope, was found to be composed of granular molecules.

In this case there were many features of the attack that might easily have led to the belief that it was a case either of ordinary cerebral hemorrhage, or of serous apoplexy, and had I not known the history of the patient, there were many circumstances connected with both attacks which might have induced me to look to other causes than the syphilitic lesion for a solution of the problem of his disease. The post-mortem examination, however, in connection with the previous history of the patient, tells so plainly that syphilis was the cause, that it is scarcely necessary to seek further for an explanation.

It may possibly be urged that the mental phenomena in the last attack were due to cerebral congestion, brought on by the patient's dissipation, and not to the syphilitic disease. But the only manner in which I can explain the sudden development of the other symptoms which were observed in the last attack, and resulted in his death, is, that the gummy tumor became the seat of active inflammation, and, pressing upon and around the yielding artery, caused its occlusion, and in that way cut off the supply of blood from the portion of the brain supplied by that artery. The active inflammation, I should judge, was excited by his recent excesses in the use of alcoholic stimulants.

In this case the first recognized attack of the disease in the brain occurred six years after the infection, and I think it very probable that, had he been a temperate man and pursued a judicious course of treatment, we should not have had the results I have related of the post-mortem examination which followed the second attack, seven years after infection.

The hemiplegia was marked by the same characteristics as described by authors who have specially observed the disease.

ELECTRICITY IN THE TREATMENT OF DISEASES OF THE SKIN.

BY GEORGE M. BEARD, M.D.

I DESIRE to call attention to a new department of science—the Electro-Therapeutics of Dermatology. Although the department is yet in its infancy, it is proper that it should now be introduced to the profession, and by preference to those who are especially interested in the study of diseases of the skin, for the twofold reason, that, young as it is, it gives promise of rapid and useful growth, and because the co-operation of more laborers is needed to make its growth healthful and to bring it to a full and strong maturity. There are several theoretical considerations that would lead us to suppose that electricity might be of service in the treatment of diseases of the skin :—

1. Pain and itching, oftentimes of a very distressing character, accompany many of the diseases of the skin, and of all the known methods of relieving and curing pain, electricity is one of the most satisfactory. If the application of the galvanic or faradic current may bring relief in headache, in spinal irritation, in the various forms of neuralgia, in rheumatism and in sprains, why should it not afford similar relief in the tormenting agonies of psoriasis, eczema, and prurigo ?

2. Ulcers, sinuses, and bed-sores have long been treated by the galvanic and faradic currents, with gratifying success ; and it would be natural to suppose that the ulcerous conditions of some of the diseases of the skin might similarly be benefited.

3. Tumors and morbid growths of various kinds are discussed by the electric currents, and especially by the galvanic current, and it would be reasonable to infer that papulæ and pustules might be discussed in a similar manner.

4. The electric currents cause *absorption* in chronic inflammations, sprains, rheumatism, and so forth ; and absorption is a process that is indicated in certain affections of the skin. The

so-called catalytic effects of the galvanic current ought surely to manifest themselves more distinctly on the skin where the electrodes are applied than on the tissues beneath.

Those who hold the theory that some of the diseases of the skin are of a nervous origin, or are in some way intimately dependent on the brain, spinal cord, or sympathetic, would find still another theoretical argument in favor of introducing electricity into dermatology, since nervous diseases have long been regarded as *par excellence the* diseases most amenable to electrical treatment. That certain diseases of the skin are demonstrably influenced by nervous conditions; that their appearance and disappearance and their general behavior are to a certain degree, and in some instances positively modified by mental conditions, is, I believe, pretty generally conceded.

Considering the powerful and theoretical reasons for using electricity in diseases of the skin, it seems at first thought inconceivable that the world could have waited so long before bringing this department to the test of experiment. I can account for the delay partly by the wide prevalence of the notion that paralysis was the only disease for which electricity could be used, and partly by the still more absurd notion that it was contra-indicated in inflammations.

It is proper for me to state at the outset that I make no claims to be an authority in modern dermatology. To the more frequent and best known diseases of the skin I have given some attention. My purpose is simply to aid and guide dermatologists in their investigations of this subject by suggestions derived exclusively from my own experience, reserving the complete history of the subject and elaborate detail of cases for a future occasion.

Apparatus.—Those who desire to study the treatment of diseases of the skin by electricity will need apparatus for both the galvanic and the faradic currents. Although, as will be seen, the faradic current answers well for some cases, and may indeed sometimes be preferable to the galvanic, yet those who depend on it will be greatly disappointed and will not obtain the results claimed in this paper.

I have elsewhere repeatedly spoken of the different forms of

apparatus: here it is only necessary to say that, in New York at least, it is now almost as difficult to get a very poor apparatus, as five years ago it was to get a good one.

I use broad electrodes in the treatment of diseases of the skin, and by preference use my adjustable electrodes or something similar. The advantage of the adjustable electrodes is that they can be kept *in situ* wherever they are applied. They are made of various sizes, and can be insulated on the outer surface, so that they can be held by the patient, if desired, or by the operator. The adjustable electrodes can be armed with sponge or with flannel covers, provided with elastic borders.

These latter are very convenient; they can be made of various sizes to suit the electrodes. Wet flannel is more painful than wet sponge. A great advantage of those flannel covers is that they can be put on and off in a moment, and can be washed like a towel, so that it is possible at all times to have perfectly *clean* electrodes.

Very frequently I use no sponge or flannel, but apply the metallic surface of the electrode directly to the body. This method is, however, quite painful.

KIND OF CURRENT EMPLOYED.—While both currents—the faradic and galvanic—have proved useful in the treatment of diseases of the skin, the galvanic appears to act more efficiently and to fulfil a larger variety of indications than the faradic. The reason of this will be sufficiently clear to those who understand the general differential indications for the use of the two currents. The peculiar electrolytic action of the galvanic current, which the faradic current possesses to but a feeble degree, is indicated in diseases of the skin for the same reason that it is indicated in the discussion of tumors. For the relief of the symptoms of itching and pain, the faradic current is frequently sufficient, especially in prurigo: its effects are also curative, but to a less degree than the galvanic current.

The current is the strongest at the negative pole; on many chemical substances the electrolytic action of the negative is greater in degree as well as very different in kind from that of the positive; applied to the body the negative acts more powerfully.

For these reasons, which clinical experience confirms, the negative is preferable in the treatment of diseases of the skin. When the faradic current is used, much less regard need be given to the poles.

The nearer the electrodes are to each other, the less the resistance, and of course, the greater the density of the current and consequently the greater the pain. Other conditions being the same, the smaller the surface of the electrodes, the greater the density of the current, and consequently the greater the pain. I prefer the larger-sized electrodes, especially where much surface is to be treated.

METHODS OF APPLICATION.—Acting on the theory that perhaps some of these diseases might depend in some way on the brain, spinal cord, or sympathetic, I have used central galvanization in a few cases exclusively, and in other cases in connection with local treatment, but have not seen results in any way comparable to those derived from applications to the diseased surface.

ELECTRIZATION OF THE DISEASED SURFACE.—My usual method of galvanizing the affected part is to place an adjustable electrode of from 2 to 4 inches in diameter over the point where the principal nerve that supplies the part is most superficial,—as the popliteal space, the anterior crural region, the border of the flexors of the arm, etc., while the negative is applied to the diseased surface by any convenient electrode with a broad surface. This is the method that I usually adopt in the treatment of ulcers. I am not able to say how much advantage there may be in applying one of the electrodes over the nerve. I suspect that it may be of service in improving the nutrition of the part that it supplies; it certainly cannot do harm in that position unless the séance is very much protracted. The positive electrode may be placed on some indifferent point, as the feet, or the hands, or on the thigh, where currents are borne well and can do no harm, however long they may be kept there. The electrode is sometimes kept firmly planted on the skin (stable), and sometimes is slowly glided from one part to another (labile). When the part is much abraded only mild currents will be borne, while in the immediate neighborhood

a very strong current may not be felt at all. It therefore becomes necessary to modify the current continually according to the sensations of the patient, so that the treatment may never be excessively painful. There is yet no evidence that very severe applications have any advantage over mild applications. The pain of the galvanic current increases with the length of time that the electrode is kept in a fixed position without breaking the current; for this reason it is necessary, when strong currents are used, to shift the position of the electrode every minute or so, or as often as the patient complains of severe pain. I am not able to say whether the best results are obtained by stable or by labile applications. The electrolytic action of the galvanic current is most decided when there is little or no interruption to the current. When the faradic current is used I generally make labile applications.

Both electrodes may be applied on the diseased surface. The advantage of this method is that it economizes time and labor where there are numerous and large patches that need to be treated. Although the electrolytic action of the negative pole is greater than that of the positive, yet both act electrolytically, as all physicians know, and both act curatively as experience shows.

When the body is covered pretty generally by disease, I sometimes put an electrode on each limb, thus allowing the current to run through the body.

Local Electrization Generalized.—I have recently applied this term to a method of using electricity which combines the advantages of localized and general electrization. Although I first used it in diseases of the skin, it may be employed to meet the same indications as general electrization; but since it requires absolute or approximative stripping on the part of the patient, it would be called for only in a limited class of affections.*

In this method the operator takes hold of both the electrodes, by their insulated handles, and passes them, within a few inches

* I have also used this method in debilitated hemiplegic patients, when it was desired to act on the muscles as well as to improve the tone of the system.

of each other, over all the diseased surface of the body. The electrodes may be kept stationary over spots where the disease is especially prominent. The method may be modified in various ways. One electrode may be kept fixed on some particularly bad spot, while the other is glided up and down the surface adjacent, or both electrodes may be kept fixed a part of the time. An advantage of this method which may be employed with either current, is that it economizes time and labor, a very important consideration in cases where a large portion of the surface of the body is diseased.

This method is especially indicated in cases where nearly the entire surface of the body is affected by disease, as in general prurigo and psoriasis. Either current may be used in this way.

General Electrization.—This method of using electricity is usually not indicated in diseases of the skin, and for the reasons already given. For those cases that are associated with general debility as a result or cause of the disease of the skin, it may be employed with advantage; one pole may be applied at the coccyx by an adjustable electrode, or at the feet by a copper or tin plate, while the other is passed over the surface of the body.

Dry Faradization.—In all the methods previously noticed, the electrodes are moistened thoroughly with salt water or simple water. It is oftentimes an advantage to use dry electrodes, either metal or the hand. Electricity thus used acts more directly on the skin and in a different way from electricity used with moistened electrodes. It enters the body by fewer points, and with a jump, as it were, from the hand or metal to the body, and is accompanied by a crackling sound. In prurigo and in acne, as well as in eczema, this method sometimes appears to be preferable to any other, and may indeed succeed when other methods fail.

Electric Brush.—The method of applying electricity by a metallic brush is quite familiar to electro-therapeutists. It is used in anæsthesia and as an electric moxa for neuralgia. When the skin is not itching or anæsthetic this method is very painful, and is therefore to be recommended chiefly for cases where there is very great irritation, or itching and anæsthesia. I have

frequently found it more efficacious than the ordinary sponge electrode. In some conditions of eczema an application, which in health would be unendurable, is positively agreeable.

If we accept the observation of Duchenne, that the current from the secondary coil exerts a more powerful action on the skin than the current of the primary coil, then the former ought to be more efficacious in diseases of the skin than the latter, and a faradic machine, which, like that of the Galvano-faradic Co., is composed of two entirely separate and distinct coils, ought to be more efficacious in the treatment of cutaneous disorders than a machine like that of Kidder, in which the three coils are connected. Practically, however, the difference does not appear to be very great, so far as I can judge from the comparative observations I have been able to make with both machines. Either machine will furnish a current stronger than any diseased or healthy skin can bear. It is possible that there may be a slight advantage in favor of one or the other, which extended observation may demonstrate.

ELECTROLYZATION.—Although in all the usual methods of applying the galvanic current there is more or less electrolytic action, yet the term electrolyzation is strictly applicable to the use of needles as electrodes, and catalyzation to external applications just described. Needles are indicated where it is desired to decompose lupus, condylomata, or tubercles.

LENGTH AND FREQUENCY OF THE APPLICATIONS.—In regard to the length of the applications and the frequency with which they should be made, no mathematical rules can be given. Much depends on the susceptibility of the patient to electricity and the locality of the disease.

The same general principles apply here as to electro-therapeutics in general, and I can add little to what we have elsewhere said on this subject.*

The commonly entertained notion that it is usually or often dangerous to apply the galvanic or faradic current on or around the head or neck, is one of the greatest absurdities that

* Beard & Rockwell's *Medical and Surgical Electricity*, pp. 158–173. For those who are disposed to experiment, I would suggest the use of applications of very mild *currents protracted for many hours at a time.*

ever crept into science, and yet there is need of caution in the treatment of patients suffering from a clot in the brain, and for nearly all patients applications to the head and neck should be much *shorter* and *milder* than to other parts of the body. The flashes of light caused by the reflex action of the galvanic current on the retina amount to nothing; but they are unpleasant, and may be omitted by taking care *not to break the current* when the electrodes are on or near the head.

The electro-therapeutics of dermatology has two advantages over the electro-therapeutics of the other special departments.

I. The current can in all cases be *directly* applied to the disease, and by either pole, as may be desired. The impossibility of placing the poles directly on the diseased parts is an important difficulty in the treatment, not only of the central nervous system and the thoracic and abdominal viscera, but also of all the peripheral muscles and nerves. Unless needles are used, the best we can do is to so place the poles that the current in passing from one to the other must traverse the tissues that we seek to affect. Even the most superficial muscles and nerves are only reached by the current after it has first passed through the skin, unless needles are used as electrodes.

There is little question that many of the diseases of the eye and ear and of the thoracic and abdominal viscera would yield more or less to electrical treatment if the anatomical position of these parts were not such as to make it impossible to apply either pole directly to the diseased tissue.

II. On account of the easy accessibility of diseases of the skin the effects of electrical treatment can be closely and accurately watched by the physician, and we are not, as in very many other classes of diseases, dependent on the statements of the patient, or on his general appearance. A patient who is cured of nervous dyspepsia, or neuralgia of any kind, does not necessarily present a different appearance after from what he did before the treatment. We judge that he is cured by his own statements. In the treatment of diseases of the skin, of any form, we can judge for ourselves, by the appearance of the diseased surface, whether the patient is or is not improving, and we can measure with tolerable accuracy the degree of the improvement

Eczema.—This disease I place at the head of the list, for the reason that I have found more rapid and uniform results from the electrical treatment in this than in any other disease. I have treated the chronic forms in different parts of the body, and in nearly all cases thus far with immediate relief of the distressing pain, and ultimate cure after a course of treatment. I have used for this affection, almost exclusively, the *galvanic* current, with the negative pole on the diseased surface. Patients have come into the Dispensary declaring that the distress is so great that they would be glad to have the suffering part amputated, and after an application of from five to fifteen minutes have gone out entirely relieved. This relief lasts for several hours, sometimes for days, and the pain grows less and less until the cure is accomplished.

Psoriasis, in its relation to electro-therapeutics, may be divided into three classes: (1) Those which yield completely and with tolerable rapidity. (2) Those who are benefited only up to a certain point. (3) Those which receive but little, if any, benefit. Judging from my own observations, I should say that the latter class (those who do not yield at all) are in the minority. Some cases progress very slowly, and need months of treatment. The negative pole of the galvanic current seems to be more efficacious in this disease than any other method. For the sake of economizing time, however, I frequently use both poles, with broad electrodes. In one case—a patient of Dr. Conkling, of Brooklyn—where hemiplegia was complicated with psoriasis, I was unable to treat the psoriasis because I feared that the reflex effect of a galvanic current sufficiently strong to be of value would injure the sensitive brain.

Pityriasis.—My observation of the electrical treatment of this disease is confined to two or three cases. In my first case, to which I have before referred, when I used the faradic current I accomplished nothing.

The dry hair is a non-conductor of electricity, and therefore, in treating pityriasis of the scalp, it is necessary to thoroughly wet the head on all those parts where it is desired to make the applications. I have now under treatment a case of pityriasis that has certainly been very much improved by a course of gal-

vanic treatment. The disease, which is of several years' standing and resists medicinal treatment, affects the scalp, and appears in patches on the trunk. In her case I have used Garratt's electric disk, directing the patient to wear it by turns on the larger patches on the abdomen. The disk appears to be of some service. It is the only case of disease of the skin in which I have experimented with it. If the very mild current afforded by the electric disk, or by any similar contrivance, is capable of any therapeutical effect, then, surely, this effect ought to be exhibited in diseases of the skin.

PRURIGO.—If electricity could do nothing more than relieve the itching of prurigo, it would be entitled to an honorable place in the armamentarium of the dermatologist. Dry faradization alone may bring relief in a very few minutes, and, when perseveringly used, may cure. I have seen immediate relief follow general electrization used in the ordinary method with wet sponges.

LICHEN.—I have had no opportunity to treat a marked case of lichen; but there is every probability that electricity would accomplish as much in this affection as in the other symptoms of the so-called dartrous diathesis.

ANÆSTHESIA.—For the curable cases of cutaneous anæsthesia, faradization is a specific, if any remedy can be said to be a specific for anything. Even cases that depend on incurable central lesion may improve very decidedly under treatment. In cases of paralysis of motion and sensation, the sensation may be partially or completely restored under electrical treatment, even when the loss of motion remains unchanged.

Anæsthesia is a condition for which the electric brush is particularly indicated. Of this condition Dr. Rockwell and myself have treated a large number of cases.

ACNE.—If I were to judge from my own limited experience in the treatment of acne, I could not speak very encouragingly. I fear that in one or two cases I have used too strong currents. In one case of acne of the face the galvanic current certainly aggravated the disease.

PARASITIC DISEASES of the skin yield so well to ordinary treatment that I have felt but little tempted to experiment on them with electricity.

The question that has been often asked me, whether parasites on the skin can be killed by a current that the patient can easily bear, I am unable to answer.

At the Demilt Dispensary I have now under treatment a case of favus, on which we are trying the effects of galvanization The advantage of electrical treatment, if it should be proved to be successful in a reasonable time, and with mild currents, would be that it would save the trouble of depilation.

RATIONALE OF THE TREATMENT.—It would be no argument whatever against the electrical treatment of diseases of the skin if no reasonable theory of the action of electricity in such diseases could be devised. In the last analysis we know little or nothing of the mode by which any of our ordinary and most used drugs accomplish their results. Who shall tell us just how quinine breaks up attacks of intermittent fever; how phosphorus feeds the brain; how arsenic relieves and cures affections of the skin. But with all our ignorance of the unnumbered processes that intervene between the reception of food or medicine into the mouth and its reception into the tissues, we do not hesitate every day and hour to employ any form of food or medicine that experience shows to be of value to the human system. As a matter of fact, however, we know more of the action of electricity, and can form a more satisfactory theory of its therapeutical action than of almost any other remedy. We know that the faradic current by its frequent and incessant to and fro interruptions passively exercises all the tissues through which it passes, like myriads of infinitesimal shuttle-cocks. We know that the galvanic current possesses a powerful electrolytic power, by virtue of which it is capable of decomposing animal tissues and various chemical substances. We know that the poles have a differential action, acids appearing at the positive, and alkalies at the negative pole, and that on the whole the action on the tissues is strongest and most sensitively felt at the negative pole. We know that the galvanic current applied to a nerve puts it into a condition of electrotonos or altered irritability—the irritability of the part near the positive being diminished, and that of the part near the negative being increased. We know that as a result of all these actions of electricity on

tissues of the body pain is relieved in irritated nerves, inflammation is reduced and absorption accelerated and morbid processes altered and decomposed; that the blood and nervous force are improved, and as a result or accompaniment of such improvement there follows improvement in general or local nutrition.

This explanation is not complete, but it aids in solving the mystery of the therapeutical action of electricity. If it does not tell all, it does at least tell a part, and tell it truly. If the term *alterative* were not so very old-fashioned and in such bad odor at present, I should be inclined to apply it to the action of electricity on diseased skin. It is a fact of clinical experiment that inflamed or aching parts may be relieved by anything or everything that irritates or changes the condition of the tissues. Thus the pain that accompanies eczema will yield somewhat and for a time to irritating liniments. *Scratching* is surely a ready mode of irritating or changing the condition of itching surface, and it is temporarily efficacious. Rubbing or mechanical pressures are modes of relieving inflammation and pain, that are justly popular. Rhinitis or pharyngitis are relievable not only by the remedies usually employed, but also by almost any irritating vapors or by solutions of any irritating chemical substances. Now, electricity does all that mechanical pressure, rubbing and irritating liniments can do for diseases of the skin, and it does much more: it so changes the tissues by its peculiar mechanical and chemical and electrotonic effects, that resolution ensues, and the morbid condition gradually disappears.

Permanence of the Results.—The very natural question whether the results obtained by electricity in diseases of the skin are more permanent than those obtained by ordinary methods, the future must answer. That relapses may occur after a cutaneous disease has even yielded to electrical treatment, already has been demonstrated. To what extent central galvanization and general faradization combined with local treatment can control the diathesis must be ascertained by patient and persistent experiment.

That the results of electrical treatment are, to say the least, as permanent as those derived from the accepted methods, and

that after the accepted methods have partially or entirely failed, electrization, either alone or in conjunction with the accepted methods, may succeed, has been satisfactorily established.

Conclusions.—It is yet too early to lay down *special* conclusions concerning the prognosis of different diseases of the skin under electrical treatment; but from what has already been accomplished this general proposition seems to be justifiable.

For many cases of psoriasis, eczema, anæsthesia, pityriasis, and prurigo, and so forth, that under ordinary treatment are obstinate or incurable, electricity is of such great efficacy, both temporary and permanent, as to entitle it to a very high rank among the resources of the dermatologist.

Clinical Contributions.

A CASE OF CONGENITAL DACTYLITIS SYPHILITICA.

By T. CURTIS SMITH, M.D.

Middleport, Ohio.

On the 21st of June, 1869, I was called to attend Mrs. ——, in her first confinement. The labor was natural, terminating, in five hours, with the birth of a male child weighing seven pounds. The child, to all appearance, was quite healthy at birth, except a shrivelled and furfuraceous condition of the skin. It nursed well, and for a time seemed to thrive as well as the average of children do; but after the third week it nursed irregularly for a few weeks and did not seem to grow, was broken out over the surface with a roseolar rash, and at night seemed to suffer severe pains, which the parents called colic, but which were no doubt really nocturnal pains, the result of constitutional infection. This state of things continued for three weeks, during which time I only saw it once. About the end of the sixth week I was called to see the child and mother, both being ill. I found the child very thin, appearing like a little old dried-up dwarf with dresses on. The skin was furfuraceous, and of a mottled pinkish hue all over the surface, except around the inner surface of the nates, upon which were several copper-colored patches nearly the size of a five-cent piece, which seemed to have been first induced as excoriations by the fœcal and urinary discharges. There were some glandular enlargements at the neck, which were tender; but there seemed to be no tenderness over the general surface. It had light-blue eyes, an abundant crop of long, fine flaxen hair, eyebrows and eyelashes long and light; flesh was soft, flabby, and skin wrinkled and relaxed, which at places seemed to be thickened. Its secretions for the most part were healthy, and at this time it nursed well, but was very fretful at night, and seemed to suffer greatly from pain. The chief point of interest to me was the condition of its hands, or, rather, fingers. The metacarpo-phalangeal joints of the index, middle, and ring fingers were enlarged greatly, the swelling being greatest exactly at the joints, and tapering rapidly towards the next joints of the fingers which were not involved. The integument over the swelling was livid or purplish, but there was no great amount of tenderness on pressure when moderate, but was quite severe when force was used. There was difficulty from stiffness in moving the joints, and always great pain; but I was unable to detect any crepitation at that time or afterwards. I saw the case but twice after this, and having never seen one like

it I was a little puzzled; neither was I able to find in any text-book in my possession a fair description of such cases. In Dr. Bumstead's work I could learn of panaris affecting the fingers; but the description was so meagre that I could find nothing of practical value in my case. I believed it was a case of congenital syphilitic disease, but was slightly at a loss to account for the condition of the fingers.

I had not yet examined the mother, which I next proceeded to do, hoping her case would throw more light on the child's condition. I found her anæmic, with countenance pale and downcast, tongue furred, mucous membrane of the throat inflamed and ulcerated over the tonsils; the post-cervical glands were much enlarged and somewhat tender. There were several erythematous patches about the face and neck. She said she suffered much from pain at night, in her elbows, knees, and along the tibia, also occasionally in the "shoulder-blade." She had for a long time had very profuse yellowish leucorrhœa, which she thought kept her weak, and caused pain in her back, but had never had any abrasion or ulcer on the genital organs that she was aware of, but was sorely afflicted with an almost constant pruritis vulvæ.

I now mentally pronounced both cases syphilitic. On my way to the office I met the husband, and he complained of "rheumatic pains," that troubled him so that he could not sleep at night, mostly affecting his shoulder, scapula, and "*shin-bones.*" I frankly told him he was suffering, not from rheumatism, but syphilis, which, after a little parley, he acknowledged having had two years ago; but he said his physician claimed to have cured him so that it would never produce further trouble. He told me when he contracted it, by whom treated, and of communicating the disease to another woman who was at that time under my care for the treatment of constitutional syphilis.

By this time my pathway was perfectly clear. I placed all of them on anti-syphilitic treatment. The father and husband recovered rapidly. The mother and child, after persevering for a considerable time, began to improve. The dactylitic swelling did not materially change for a month, after which it gradually disappeared, and at the end of three and a half months entirely disappeared. The mother also improved and became robust in appearance, but occasionally suffered nocturnal pains, which a few days of treatment kept in abeyance. The child did not grow any that I could perceive for a month after treatment had been begun, after which it thrived well.

The treatment was mercury and potass. iod., and mineral tonics internally, with local inunction of mercurial ointment twice daily to the neck and eruption. When last seen all the parties were in fair health, but I have not seen either of them for fifteen months past.

I was not able to find a description of dactylitis syphilitica until I saw the account of the disease by Dr. Taylor, published in the January num-

ber «1871» of THE AMERICAN JOURNAL OF SYPHILOGRAPHY AND DERMATOLOGY.

I have purposely extended the history of this case to include the parents, in order to satisfy all that it was undoubtedly a case of syphilitic infection. I afterwards saw the physician that had treated the husband, and his story corroborated the one told to me by the husband.

A CASE OF RAPID SYPHILIS, ACCOMPANIED BY CAPILLARY BRONCHITIS AND LOBULAR SOLIDIFICATION OF LUNGS.

BY H. C. HAND, M.D.,

St. Paul, Minn.

On the 24th of May, 1870, Jane T. came under my care, with the following history:—

One year before, after being on the town five weeks, she contracted a chancre. Six months after appearance of chancre an eruption appeared on skin, and about the same time she began to cough. In two months more she noticed a soreness of throat. At the time she came under observation the upper portion of vulva was the seat of a chronic ulcer; the labia majora and minora were excoriated; around the anus were numerous cicatrices and healing superficial ulcers; in each groin were indurated lymphatic glands; there were brownish-red stains, from a faded eruption, over body; the hair was thin, the post-cervical glands enlarged, the soft palate was destroyed, and there was a deep foul ulcer on posterior wall of pharynx; voice was whispering and rough; body emaciated, and little strength.

June 13. Chest was found to be dull on right side posteriorly, with harsh respiration and large moist rales; elsewhere physical signs were normal.

June 19. Seized with a [illegible] stitch in left side.

June 20. Pulse 150. [illegible] Cough, with frothy white sputa. Pain in side is [illegible] moist, large and small rales all over chest.

June [illegible]

For [illegible] troublesome; sputa frothy, with [illegible] with disseminated subcrepitant [illegible]

[illegible]d. On the left side, behind and [illegible]eble respiration, and diminished [illegible]on sound and ægophony. Expres-

[illegible] Cough is looser, the respiration less [illegible] changed to submucous.

June 28. Pulse 120; respir. 36. Cough not very troublesome. She is gaining flesh and strength.

June 29. Left side of chest is dull on percussion, both above and below, and there is bronchial respiration, with many coarse mucous râles. Right side is clearer on percussion and without bronchial respiration, but likewise filled with mucous râles.

About this date the patient passed into the hands of one of my friends, from whom I learn that there was never any material improvement from the condition last noted, and that by constant cough and shortness of breath she became exhausted, and died January 7, 1871.

Autopsy, 40 hours after death. External appearances: body emaciated; below each knee are large raw-ham colored stains. Lungs: upper lobe of left solidified, the whole of it sinking in water, very firm, and of a uniform grayish-red color; lower lobe is compressed by false membranes, so as to occupy only a space the size of one's fist; its condition is much the same as that of upper, except that some of its lobules are permeable to air. Both lobules of right lung have more breathing space than left, but contain extensive lobular solidifications of same character as those above described. Extensive pleuritic adhesions exist over right as well as left lung. No tubercles; no breaking down of lung-tissue. Heart small and firm; cavities empty, except a yellow clot in right side.

Liver: weight 53 ozs.; upper surface of right lobe adherent to diaphragm by firm bands of lymph; section, dark-red. No reaction with iodine.

Spleen: weight 9 ozs.; section granulated, and uniformly red. Iodine develops a mahogany-brown stain in numerous pin-head points.

Supra-renal capsules, twice ordinary size, dark-red, firm; kidneys, combined weight, 15 ozs.; capsules not adherent; section pale and smooth; cortical and medullary portions are normal in proportion to each other. No reaction with iodine.

The treatment of this case presented only one point of interest. In the dyspnœa—the very agony for breath—she suffered, prompt and positive relief followed the use of tincture of hyoscyamus in teaspoonful or two teaspoonful doses; so great was the relief that every night she would beg that the nurse might be allowed to give it as soon as the dyspnœa became *very* bad.

The clear history of capillary bronchitis becomes of greater interest when we consider it as the cause and starting-point of the chronic, lobular pneumonic solidifications found post-mortem. In the notes these solidifications are described as of a uniform grayish-red color. This is, in the main, true; but in some portions the grayness verged into a greenish grayness, and caused an appearance to some extent like the green sea-marble solidification described by Lancereaux as characteristic of syphilitic pneumonia.[1]

CASE OF EPITHELIOMA OF PENIS INVOLVING THE WHOLE ORGAN.

By JOHN DWYER, M.D.,

Resident Surgeon New York State Emigrants' Hospital, Ward's Island.

Emanuel L., German, aged 25 years, admitted to Emigrants' Hospital, Ward's Island, 19th July, 1870, with malignant growth involving the entire penis.

The patient was in a very exhausted condition, emaciated and dirty; the distinguishing character and shape of penis entirely destroyed, numerous large growths, like aggregated syphilitic vegetations, enveloped the penis from root to meatus; no skin could be discovered except immediately in front of symphysis, where about a quarter of an inch of the integument was still healthy. The whole growth was about the size and shape of a clenched hand; no trace of glans penis or meatus urethræ, but on micturition the urine escaped at about the middle of left side of growth. There was a most offensive secretion, and the scrotum was much excoriated. There was an indurated gland in each groin, not large or painful.

At first view I took it to be a case of neglected syphilitic vegetations, but the patient positively denied that he ever contracted syphilis, and asserted that he had had no coitus for three years preceding. His mouth, throat, bones, etc., were carefully examined, but no trace of syphilis was discovered.

His story was that he contracted his disease by sleeping with a fellow-laborer on a farm near Omaha; he one day discovered that his bed-fellow was, as he expressed it, "rotten;" that his penis was covered with sores and vermin; that about ten days afterwards patient's own penis got sore; there being no physician near him he walked to Omaha, where a doctor cut him; but his sores becoming worse, he started on a walk to Chicago in order to get into hospital; after arriving at Chicago he was directed to continue on his journey to New York, as he, being an emigrant, should apply to the Emigrants' Hospital at New York. Not having any money he walked to New York. He stated that he had been on the tramp for four months, his disease every day growing worse, and his strength failing.

On admission the first indication was to feed him well; the growths were washed with decoction of white-oak bark and chlorine wash, and occasionally touched with tinct. fer. mur. The excoriations on scrotum healed rapidly, but the inguinal glands remained stationary. After two weeks the growths became more indurated and paler. I attempted to remove part with the scissors, but the hemorrhage was so profuse, and was arrested with so much difficulty, that I refrained from further active interference until the patient's general health was better established.

During the fourth week a fresh ulceration commenced on the hitherto intact skin at the root of the penis; a portion of the growth was examined under the microscope by my colleague Doctor Reidel, and showed undoubted evidence of epithelioma (at the same time a portion of true syphilitic vegetation from another patient visibly demonstrated the difference). It was therefore decided to ablate the whole penis before the disease spread further, and the patient himself was most desirous of the operation.

With the able assistance of Doctors Ford, Esseroyer, and Reidel I proceeded as follows:—

The patient being under the influence of chloroform I introduced an elastic catheter (without the stylet) into the urethra as far as the bladder. There was some difficulty in finding the orifice of the urethra, because of the mass being so crowded up with papillæ and grooves. The growth was then drawn forward over the catheter, exposing and freeing the little remaining healthy tissue at the root. A strong needle and ligature was then passed through the healthy tissue, including and transfixing the catheter, and with a strong bistoury the penis was amputated just in front of the insertion of the ligature; of course the catheter was divided with it, leaving about half in the urethra. The diseased mass weighed 8¼ ounces.

There was considerable hemorrhage from the dorsalis and cavernous vessels; two ligatures were applied, and pressure succeeded in arresting what could not be secured.

The ligature was then partly withdrawn and divided in the middle, then freed from the catheter, making two separate sutures, which were tied in such a manner as to bring the mucous membrane in apposition with the loose skin, as in the ordinary operation for phymosis. The cut catheter was left in the urethra, and a cold-water dressing applied.

The wound healed rapidly. On the second day the catheter was withdrawn; on the fourth day the ligatures came away; on the eighth day the wound was completely healed; on the tenth day the patient was out of bed, requesting his discharge from hospital.

He was kept under observation for two weeks later; his health was completely restored, the enlarged inguinal glands had almost disappeared, and he had no difficulty in passing his urine through the little appendix left him.

As he will be chargeable to this Hospital until December, 1872, the probability is that if the disease returned, either in a syphilitic or malignant form, he would again apply for admission. Up to this date, December 7, 1871, he has not applied.

Review.

TILBURY FOX ON DISEASES OF THE SKIN.*

A WANT has long been felt by American practitioners and medical students for a concise and practical treatise upon diseases of the skin. The translation of Cazenave's Manual had become much too antiquated; the works of Nelligan and Hillier were not sufficiently clinical, practical, and comprehensive in their character, and the hand-books of Mr. Wilson, though the works of a man of vast knowledge and experience in skin-diseases, was so replete with redundancies in nomenclature and diffuse classification, that they did not answer the purpose of reliable guides to either student or practitioner.

What was wanted, then, in this country, was a work of convenient size, which should embrace both a clear and succinct clinical history of each disease of the skin, with a careful account of its diagnostic features, and a thoroughly practical description of the various methods of treatment; in a word, such a book as would serve as a *vade mecum* for the student attending lectures upon the subject, and also for practitioners in general; and in the main this want is supplied by the manual of Dr. Fox. It will be observed that we have laid particular stress upon the fact that the immediate want of American physicians is for a work which describes fully the various features of skin-diseases and their treatment, and have said nothing about a want of knowledge of their pathology; now, while we fully recognize the importance of an intimate knowledge of the pathology of skin-diseases, we think that the study of dermatology in this country, except with the few who pay especial attention to it, is not sufficiently far advanced for a work treating largely upon that branch of the subject, and that its consideration at any length would be a drawback rather than an advantage to the book. Dr. Fox's manual treats of this branch only in a cursory way, and to our mind this is an advantage, for the reason already given. In the introductory chapter to this

* Skin-Diseases; Their Description, Pathology, Diagnosis, and Treatment. By Tilbury Fox, M.D. First American, from the last London Edition. Edited by M. H. Henry, M.D. Wm. Wood & Co., New York, 1871.

Eczema: Its nature and Treatment. By Tilbury Fox, M.D. H. Renshaw, London, 1870.

work the importance of the study of diseases of the skin is briefly and clearly shown, and the reader will be undoubtedly impressed favorably by the common-sense view which its author takes of these diseases, as he shows very clearly that in their study there need be no tendency whatever to specialism, but that in their course, etiology, and treatment they belong to the general domain of medicine. In fact, this idea seems to largely pervade Dr. Fox's writings, and we cheerfully attest our appreciation of its importance as tending to spread sound views.

The chapter on general pathology, and on the elementary lesions of the skin, is very concise and comprehensive, and particularly the portion devoted to the lesions, which if carefully read will greatly assist the student in the course of his reading and observation. In the etiology of skin-diseases, Dr. Fox recognizes three points of origin, viz.: in the blood, in the tissues, and in the nerves, and he shows how each and all may be affected. He divides the causes affecting these structures into internal and external; and while he fully recognizes the point so much insisted upon by Hebra, of the great influence of external agents in producing diseases of the skin, he clearly proves that internal causes are equally potent in their production. He gives a very complete synopsis of the various alterations in the state of the blood which produce skin-disease; shows in what manner influences acting upon the nerves produce them, and then treats very clearly upon the influence of various external agents, laying particular stress upon scratching, a point which Hebra insists upon, in aggravating and perpetuating the various eruptions. In the matter of classification, he adopts a modification of the clinical scheme of Mr. Wilson, which has the advantage of much greater simplicity than the original. We think that a classification based upon pathological anatomy has advantages over all others in simplicity and comprehensiveness; yet, in the present state of our knowledge, such a classification cannot be perfected, but will have to continually undergo reconstruction. The present classification answers the purpose admirably for a text-book of this size and scope. The general remarks upon the diagnosis, prognosis, and treatment of skin-diseases are short but precise. Little need be said of the chapter devoted to the zymotic diseases, except that, though it is short, the diseases are quite accurately described. It is much to be regretted that the description of erythema is quite meagre, considering the great frequency and the very interesting features of this polymorphous affection; in fact, English literature is wanting in a comprehensive history of this disease. The section descriptive of urticaria is quite full and clear, and contrasts strongly with the previous portion of the chapter devoted to erythema.

The subject of eczema is one which greatly interests all dermatologists, and the description of this disease as given by Dr. Fox is entitled to careful perusal, as his views are somewhat at variance with those of nearly every other modern observer, and are, in reality, those originally advanced by Willan.

The lectures, three in number, upon eczema were delivered before the Medical Society of London, and as they are only an amplification of the views put forth in the manual, we can consider the two works together. Dr. Fox regards the view first advanced by Hebra, and afterwards by Anderson, that in its origin the lesion of eczema may be polymorphous, as utterly untenable, and he thinks that in every case of eczema the initial lesion is a vesicle, and that, when not found, the case has been observed after this lesion has disappeared, it being of very ephemeral duration. Dr. Fox, following Willan, divides eczema into three varieties: eczema simplex, eczema rubrum, and eczema impetiginodes, as he thinks that the disease generally runs its course in these forms. He adopts this division as being a clinically true one, and from the fact of its simplicity; and he thinks that Hebra's division of five varieties is based upon stages of progress rather than upon differences in variety. Now we certainly think that in the definition of eczema as understood by Fox these varieties are clinically true, but in the more extended definition of other authors we think that it is not sufficiently comprehensive, and can be increased without confusion.

We are disposed to look upon the more common varieties of lichen as in reality forms of eczema, as in their course and chemical history they so closely resemble cases of eczema; they are in fact cases of eczema in which the cell proliferation is greatly in excess of the discharge. We think as Dr. Fox does, that so well marked and rare a disease as pityriasis rubra can hardly be considered as a typical variety of eczema, and we can hardly understand why in Hebra's book he devotes a separate chapter to its consideration, when he admits that while there is one variety which can be classed as an eczema, there is another which requires a separate description. There can be no doubt that many cases of eczema are of incomplete development, and in them we have simply infiltration and scaling, and perhaps fissuration, and we think that this variety, and a modification of it, consisting of infiltration and fissuration, as essential, with perhaps a certain amount of scaling, which is variously termed eczema tendella, rimosum, and fissum, should be fully admitted, and we hold that Dr. Fox is at variance with the observation of most of the other observers when he states that at some period the

pathognomonic secretion has been present, and also a quasi vesicular stage. Turning now to the description of the different varieties of eczema, we find them very clearly portrayed; the etiology of the disease is admirably treated of, and the treatment, which is considered at some length, is noticeable for its clearness and simplicity.

To Dr. Fox certainly is due the credit of first calling the attention of the profession, in an admirable paper, to a very peculiar form of inflammation of the skin which he called *impetigo contagiosa.* We have no doubt that previous to the publication of his observations this disease was variously regarded as pemphigus, scabies, eczema from lice, and even varicella, and we certainly think that the profession is greatly indebted to Dr. Fox for the light which he has thrown on this subject. We have ourselves, in a previous number of this Journal, given some observations on this disease which fully verify Dr. Fox's description.

Dr. Moritz Kohn, of Vienna, also confirms Fox's opinion. The description of the various pustular diseases is certainly excellent, as well as those portions relating to herpes and pemphigus, the former being quite fully treated of. We regret to see that Dr. Fox calls psoriasis lepra, and that he denominates it an alphous disease, simply from the whiteness of the scales, as this is in fact merely appending a useless name, for we find him everywhere else so chary in adding new names.

The general treatment of the subject of psoriasis is good, and we are pleased to see that he admits the existence of an anomalous form of the disease, which was first described by Anderson, and called psoriasis rupioides. Our conclusions upon this variety are in accord with those of Fox, as we have seen the disease occur in cachectic subjects, and have by the microscope demonstrated the presence of pus-corpuscles intermingled with the scales.

The chapters upon lupus and the cancerous affections are well written, and their treatment is well described; but we must express our regret that so important a class of skin-diseases as the syphilides should not have been treated of at more length and more in detail than they are.

The chapter upon leprosy contains a very good account of this disease, the author having had quite extensive opportunities for the observation of it in his travels in the East. He also describes the Ngerengere of the New Zealanders and the Cacubay of Jamaica, two diseases which are similar, in their nature, to leprosy.

Under the head of hypertrophic diseases we find four divi-

sions—first, epithelial; second, capillary; third, dermic; fourth, vascular growths. Under the head of epithelial hypertrophies he includes pityriasis, ichthyosis, and xeroderma. He thinks that xeroderma is a mild variety of ichthyosis, the scales of the former being mostly epidermal, whereas those of the latter are a mixture of epidermal scales and sebum. The dermic hypertrophies include scleroderma, keloid, fibroma, bucnemia tropica or elephantiasis arabum, and dermatolysis. These diseases are accurately described. We might naturally expect that, as a result of the author's long study of the vegetable parasitic diseases, we should find them admirably treated of, and such is the fact; as their clinical history is clearly and accurately defined, and their treatment is fully considered.

We are pleased to see the somewhat rare and peculiar disease tinea kerion so fully described by the author, and we would remark that his conclusions, that the disease is of parasitic origin, the parasite being the trichophyton, are fully confirmed by the results of our own observations. We find that Dr. Fox is among the few believers in the parasitic origin of tinea decalvans.

The chapters upon neuroses of the skin, upon chromatogenous diseases, and upon disorders of the glands are remarkable for their clearness and terseness. We find, at the end of the book, a carefully prepared glossary, and a formulary which, though it contains many useful prescriptions, like all collections of this kind, also contains many which are useless.

The work is written by a highly accomplished clinical observer, who, by his broad views and unbiassed opinions, justly represents the English school of dermatology, and we must express our hearty commendation of it, on account of its terseness of style, its simplicity of arrangement, its lucid descriptions of disease, its clearly drawn outlines of treatment, and for the broad and common-sense views which it contains.

The American is far superior to the English edition. It is brought out by Dr. Henry with the sanction and approval of Dr. Fox. It is a handsome 8vo volume of some three hundred and twenty pages. The errors of the English edition are corrected in the volume before us. The Editor has displayed good judgment in the performance of his task. His reasons, as stated in the preface, for not burdening the work with notes and additions, will meet with the hearty approval of every reader who knows that the usual additions tacked on to works re-published in this country are of little value or benefit.

R. W. Taylor, M.D.

Selections from Foreign Journals.

REMARKS UPON THE PATHOLOGY AND THERAPEUTICS OF THE ULCUS SERPIGINOSUM.

From observations at Prof. v. Sigmund's Clinic for Syphilis.

By DR. EMANUEL KOHN.

Translated from the Archiv für Dermatologie und Syphilis, by Dr. John C. Jay, Jr.

The soft venereal sore situated either upon or in the neighborhood of the genitals, and known by the name of chancre (Schanker), may present a variety of forms. One of these is that very rare form, ulcus serpiginosum, which we intend to speak of, and of which pathology hardly presents an analogy.

We understand thereby a loss of substance in the integument, several inches and sometimes a foot in extent, and having, moreover, an elongated configuration, due to the fact that upon one edge of the ulcer a rapid ulcerative process is going on, while upon the opposite edge cicatrization is taking place, though less rapidly than the former destructive process. One edge is generally convex, has a pale-red, shining appearance, and bevels off gradually into the base of the ulcer. The other edge is swollen, often three to four lines in thickness, ends very abruptly, and is ragged or serrated. The processes or shreds, several lines in length, hang down upon the base of the ulcer, bleed easily, and present, under the microscope, vascular loops and connective-tissue fibres, between which are imbedded numerous large and small cells. The size of these individual processes upon the concave edge is striking, and when the ulcer is secreting freely they are bathed, upon their under surfaces at least, with pus, undergo degeneration very rapidly, leaving behind deep indentations, whereupon what was formally sound tissue in the adjacent integument becomes in turn processes projecting into the ulcer. In this manner the spreading of the ulcer takes place. Microscopical examination of the cicatricial edge as well as of the opposite edge reveals features differing in no respect from those seen in other ulcers. Those points at which, to the unassisted eye, the cicatrizing process passes into that of ulceration, likewise present nothing peculiar, nor does the discharge from the ulcer differ in any degree from that of any other loss of substance, or solution of continuity in the common integu-

ment. And yet we have this very striking difference in the progress of the ulcus serpiginosum! Can it be due to some peculiar endowment of the pus from the ulcer? As will be shown, no. It is well known that we ascribe, at least to that genital ulcer induced by contagion, two stages—one of progression and one of cicatrization. To explain these two stages, the following theory was propounded: it was asserted, based upon many experiments, that during the stage of progression, the pus is inoculable; and through this very property of the pus new particles of the tissue adjacent to the ulceration were being constantly drawn into the same destructive process. The cessation of the process of ulceration is thereby explained, "That the pus loses its inoculability," and this explanation is likewise founded upon numerous experiments.

Viewing the ulcus serpiginosum in the light of this theory, two alternatives present themselves: either we must pronounce the theory false, or must assume that it does not apply to the ulcer in question; that this is a disease differing from the ordinary ulcer—a disease *sui generis*. We would be obliged to assert that the pus upon one edge of the ulcer was of a virulent character, while upon the other edge it did not prevent, but even favored, the production of young cells; or we would have to assume that the spreading of the ulcer was not caused by virulence (corrosion) on the part of the pus. The pus, however, is virulent (corrosive); it is inoculable, as repeated intentional and unintentional inoculations have shown. Indeed, these inoculations have furnished the following remarkable results—remarkable because contradictory. The secretion of an ulcus serpiginosum produces upon the person having it, in one case an ordinary ulcer, in another an ulcer of a serpiginous character. (The inoculations giving these results were made simultaneously.) Inoculation of the pus upon other individuals produced, likewise, in one case an ulcus simplex, in another case an ulcus serpiginosum (see Canstatt's Jahresbericht 1868, 2d vol., page 571). Therefore the peculiar course of the ulcus serpiginosum is not explained by a microscopical examination of the ulcer, its adjacent tissue, or of its secretion, nor is it due to a peculiar property of the latter, or it would be regularly manifested after its inoculation.

Some authors have tried to explain the affair by assuming the serpiginous ulcer to be a kind of gangrene. But this is met by the objection that the sloughing of gangrene, as far as it is caused by the ulceration, advances uniformly in every direction, which is not the case in that form of ulcer of which we are speaking. As the result of observation, it is true that the ulcer is for a long time of a simple nature before it assumes the ser-

piginous character, just as a gangrenous ulcer eventuates from a simple one. This one point of similarity is the sole argument in favor of the above explanation, while against it there are several well-founded objections.

1. The establishment of the gangrenous process in an ulcer is always attended by fever, while the change of a simple into a serpiginous ulcer is not accompanied by any disturbance of the general system.

2. Inoculations, intentional or unintentional, from a gangrenous ulcer never result in a gangrenous ulcer, at least, never in an immediate one; while the ulcus serpiginosum occasionally reproduces an ulcus serpiginosum.

3. It has been asserted that a gangrenous and serpiginous ulcer are produced from a simple ulcer by the same causes—to wit: degeneration of the stagnant pus, immoderate cauterization, immoderate use of alcoholics, excessive bodily exertion, venereal excesses during the existence of the ulcer, destitution, insufficient nourishment, a vitiated atmosphere from the crowding together of patients. If these were really the only causes of the change taking place in a simple ulcer, then any of these conditions being present, the change should always, or at least much more frequently, occur than in fact really happens. On the contrary, singly or collectively, these influences are frequently present without producing gangrene, not to mention the much less frequent ulcus serpiginosum. Equally false is the opinion that a dyscrasia, anæmia, cachexia, or a scrofulous constitution is necessary for the establishment of the ulcer; for such ulcers are frequently met with in individuals who are otherwise relatively healthy. It has been noticed that the general health of the patient has not suffered, even when from the extent or condition of the ulcer it would be natural to expect the nourishment of the individual to be seriously interfered with. Observations gathered from patients who have been obliged to spend years in hospital, in bed by months at a time, who suffered from terrible pain, and who failed to procure sleep from large doses of narcotics, which alone were injurious to digestion, and who were subject to a copious discharge from large suppurating surfaces—I say that observations upon such patients have shown that, in spite of everything, they gained in weight, retained the same expression and contour of the face as when in health, and the skin, in some cases, had even a firmer attachment to the subjacent tissues. The constitution is, therefore, no criterion of the course of a serpiginous ulcer.

Many have maintained that the serpiginous ulcer is a peculiar form of the syphilides. In opposition to this theory is the fact

that the ulcerative forms of syphilitic disease of the skin occur only many (at the least six) months after the entrance of the syphilitic poison into the system, whereas the serpiginous ulcer is generally developed a few weeks after infection, when the transition of the primary ulcer, or of its (degenerating) cicatrix, into the serpiginous form may be observed. This theory seems to have originated in the circumstance that there are in fact secondary, and more often tertiary, forms (in the latter case congenital) of syphilis which closely resemble in appearance the ulcus serpiginosum. But the differential diagnosis is soon made out by what we have already stated, and is rendered still more easy if it be remembered that the ulcer in question is always single, often of immense size, and the development of which can be shown to have proceeded from the genitals or their neighborhood, whereas those tertiary ulcers, which from their appearance are liable to cause a mistake of diagnosis, are always found multiple.

Those forms of lupus which may resemble a serpiginous ulcer at any of its stages are soon easily distinguished from the latter by the peculiarity of their course, and the presence of small lupus tubercles the size of hemp-seeds.

It is certain that the ulcus serpiginosum is not the local manifestation of a constitutional disease. It is a form of ulcus simplex modified by some (to us as yet perfectly unknown) circumstances.*

We are not even in a position to advance a hypothesis concerning these circumstances. The extremely rare occurrence of this form of ulcer seems to be the main cause of our ignorance; for in hospitals in which the annual reception of syphilitic and venereal patients amounts to 1,000 and over, there are years in which not a single case of ulcus serpiginosum is met with. As regards prognosis, we may remark that the smaller ulcers of this variety heal under the course of treatment to be mentioned below. The larger ones pursue the following course: after the cicatrix has attained an enormous size—*i. e.*, involving a triangle bounded by the inguinal folds and a line which passes horizontally from side to side, just below the umbilicus; or spreading over the lower region of the abdomen down both sides of the

* It is naïve when syphilographers ascribe the origin of the ulcer to uncleanness on the part of the patient. Many ulcers are so situated that the pus, in order, according to this theory, to cause an extension of the ulceration by overflowing the edge of the ulcer, must advance in opposition to the laws of gravity; and moreover, how with this theory can be explained the existence for years of enormous ulcers in persons who enjoy the most careful nursing and medical care in hospital, and in whose cases uncleanness is absolutely out of the question?

scrotum to the perinæum, and also extending over both nates—after such enormous ravages a phenomenon in its progress takes place: its advance seems to be slower, and the process of ulceration is apparently stationary. The tumefaction of the concave edge opposite to the cicatrix subsides, and that edge loses its jutting prominence, and inasmuch as the convex edge is continually advancing, the base of the ulcer partakes of the shape of a crevice, which as such may continue for many years, until finally it too heals, provided some intercurrent disease has not meanwhile caused the patient's death.

From what has been said, the conclusion may be drawn that there may be cases which continue through many years, and, as there are no means by which we can shorten the course in individual cases, so there are also no indications whereby beforehand we may prognosticate such a tedious course in cases which, as a rule, heal in a few weeks.

As regards therapeutics, there is but one fundamental and successful procedure. This is a thorough destruction of the ulcer. As a matter of course, the smaller the ulcer the surer is the success and the safer the measure. One should not be influenced by the wishes of the patient, but insist upon the best means, which of course may be carried out in various ways, which are all nearly equally effective. The caustic potassa stick is most frequently made use of, with which the ulcer is thoroughly, and for several seconds consecutively, pencilled. The slough which now takes place involves the tissues a little deeper than the points originally cauterized. This is for those cases in which the ulcer has not already attained too great an extent, and is so situated that the subsequent cicatrization is of no consequence. The officinal potassa cum calce, fused into a stick, or mixed with alcohol, quantum satis, making the so-called Vienna paste, is used to produce a more intense action. Neither the Laudolfi nor the Canquoin pastes are advisable, as the enormous destruction of tissue produced by them is out of all proportion to the effect desired. Nevertheless it must be confessed that in desperate cases the actual cautery has been applied with advantage. All the other means which, in the treatment of ulcers, are made use of with good effect, will not even stop the spreading, and much less will they cause healing, of the ulcer in question. Such are, for instance, nitras argenti, cuprum sulphuricum, ferrum sesquichlor., hydrarg. corrosiv., the chloride of potassa, Lugol's solution, etc. Equally useless are those remedies which are employed against a hypothetical, but in reality non-existing, dyscrasia, to which the ulcer has been ascribed, namely, quinine, iodide of potassium, bromide of potassium, iodide of iron, and

mercury, internally and externally. It is, likewise, of no use to cut off, from time to time, the projecting prominences of the concave edge of the ulcer. The contour of the ulcer is thereby only enlarged, as the cut surfaces immediately assume their former features.

From all that has been said, it is apparent that in the therapeutics of the ulcus serpiginosum our knowledge is as deficient, if not more so, as it is in the pathology. The smaller ulcers of this character are, with a small portion of the adjacent sound tissue, to be thoroughly destroyed, while the larger ones are left to nature, and heal after many years, if the patient lives so long.

ON THE ERYTHEMA MULTIFORME OF HEBRA.

By DR. EDWARD LIPP, OF GRAZ.

Translated from the Archiv für Dermatologie und Syphilis, by Dr. G. J. Swerchesky.

I propose to give a short account of my observations upon an affection of the skin the cause and forms of which were described and illustrated by plates in an excellent manner by Prof. Hebra. The observed cases numbered nineteen; two were males and seventeen were females.

The eruption of the erythema is often preceded by remarkable symptoms: feverishness, chills, headache, pain in the limbs (twitching), lassitude, sleeplessness, etc. *The precursors of the erythema* precede the eruption from one to four days. One patient positively asserted that the eruption first took place on the ninth day of the general indisposition.

We might well suppose, from the designation erythema "multiforme," that *its forms and appearance* must be very different. Besides papules and tubercles, we will here occasionally detect roundish *patches*, which after a short time, sometimes only a few hours, disappear, or, like papules and tubercles, show a tendency to the peripheral growth, undergo a variety of tints, and can also form erythema annulare and gyratum. In two cases the observer had seen a few broad *semilunar or S-like curved patches* of from two to four lines in length and one and a half lines in width, and of a very ephemeral duration. In one case some very small, almost dot-like, spots were circularly arranged; in another, a *circle* of the size of a walnut was formed by *very small papulæ*. The existence of these circles was only from one to two days. *Vesicles* were met with in two cases. They were either isolated, or grouped on the

tubercles extending towards the periphery. In one case of erythema with the formation of vesicles, pustules were also found. There was an accumulation of pus, of a size of a millet-seed, under the epidermis of two tubercles (on the forehead and forearm). In other tubercles the pustules seemed in progress of development, but the supervening involution of the tubercles checked their growth. I will mention one very interesting case of erythema exudativum, which occurred in a man of thirty-seven years of age, who was very emaciated from the negligence of the skin affection. The tubercles and erythema gyratum (marginatum) were unusually developed. In both forms superficial ulceration could be seen, besides the spots where the epidermis was either absent or substituted by a scanty yellowish coat.

The ulcers presented different forms: they were round, oblong, linear, and sinuated. The former happened mostly in the central part of the tubercles, the latter almost exclusively in the more or less distinctly marked edges of the large and flat erythematous patches. The mucous membrane of the oral cavity, cheeks, and tongue was here and there covered with somewhat prominent gray or yellowish erosions. The soft palate and the conjunctiva of the eye and eyelids were injected. Several small inflamed spots supervened during the patient's stay in the hospital, which speedily passed into suppuration. Syphilis could be excluded positively. The treatment was therefore limited to the cleansing of the mouth with cold water, and application of cold compresses to the exulcerated parts. After three weeks' treatment the patient recovered completely. Very small scars remained instead of ulcers. I think that several factors co-operated in producing this complexity of symptoms. The intensity of the morbid process, and the want of care of his affection, without doubt, had their share in producing this result. But nevertheless a sufficient explanation of symptoms of the case cannot be given.

The *eruption of the erythema* sometimes lasts quite a long time. I know, for instance, of two cases in which the eruption existed, though with intervals, from eight to eleven weeks. In a third case it existed, with intervals of a few weeks, for eight months.

There is not a single region of the body which would present *any immunity from this affection.* The hairy part of the head, *vola manus* and *planta* are not exceptions to this rule. In one case both *volæ manus* were almost entirely affected with erythema, and simultaneously it existed also on the anterior and posterior sides of the fingers, and later also on the internal edges of

the feet, especially towards the sole, though all other regions were exempt from the disease. In the former regions chiefly papulæ appeared which were of the size of a lentil, and in the latter, patches of the size of pea and bean were seen. They changed very soon into erythema gyratum.

The *mucous membranes* seem to be involved in the erythematous process. The conjunctiva of the eye was reddened in two cases (the skin of the lids not being affected), once in the form of a limited red patch. The tonsils and the arches of the palate appeared also reddened in two cases. Possibly here belongs also the peculiar affection of the mucous membrane of the above-mentioned case.

The symptoms of the fever in erythema are seldom wanting, and if the disease is very intense, it may last one or two weeks, and even eighteen days, without interruption, and they may return when the eruption of the skin relapses. The temperature may rise as high as 39.8° C. The heat becomes still more intense and of longer duration when any affection of the internal organs occurs. In one case endocarditis (with the intumescence of spleen) and a slight one-sided pleuritis were detected; endocarditis in this case was preceded by rheumatic symptoms.

Rheumatic symptoms accompanied the erythema in nine cases. They can be mentioned summarily thus: twitching in the head and limbs, pain in the muscles spontaneously as well as upon movement and pressure; also in joints of knee, elbow, tibio-tarsal, shoulder, carpal, tarsal, and sterno-clavicular. Distinct swelling of joints was very seldom met with. There were also several bony parts which were painful upon pressure, viz.: protuberances of the femur and humerus, both malleoli, and ensiform cartilage. Also pains in the chest, back, soles, etc.

Causes.—One patient stated that, being soaked by rain, chills and indisposition came on. She suffered from shiverings in the day-time, and from fever and sweat at night. In a short time she experienced twitching pains in all the limbs, and an extraordinary weakness, increasing from day to day, and she had no appetite. These symptoms of indisposition existed, with greater or lesser intensity, about nine days, when the patient felt a slight burning in the neck, which was speedily followed by patches which spread over it, and papules and tubercles on the outer aspect of the forearms and hands, and on other organs.

The age of the affected persons was respectively as follows:—

3	females	from	15–19	years.	4 females	from	35–39 years.
5	"	"	20–24	"	1 "	"	40–44 "
2	"	"	25–29	"	1 male	"	35–39 "
2	"	"	30–34	"	1 "	"	40–44 "

The onset of the erythema falls within the following months:—January, 3 cases; February, 1 case; March, 1 case; April, 1 case; May, 1 case; June, 2 cases; July, 1 case; August, 2 cases; September, 1 case; October, 1 case; November, 2 cases; December, 1 case.

I will conclude here by stating that the erythema exudativum multiforme in a few cases was preceded by syphilis. Cases complicated with recent syphilis were the severest in their course. I may remark explicitly, that the differential diagnosis between the syphilitic eruptive forms and simultaneously existing erythema does not present any difficulty, and that the above-mentioned symptoms may co-exist in genuine erythema as well as in that complicated with syphilis.

ON THE ABSORPTION OF GRAY OINTMENT AND OF CORROSIVE SUBLIMATE THROUGH THE UNBROKEN SKIN.

A MICROSCOPICO-CHEMICAL RESEARCH.

BY DR. ISIDOR NEUMANN.

TRANSLATED FROM THE WIENER MED. ZEITUNG, BY DR. FRANCIS E. ANSTIE.

THE opinions of the various authors respecting the absorption of mercury through the unbroken skin differ much from each other; we shall therefore discuss our own labors, seeking to find an answer to the following five questions:—

1. Does mercury, in the inunction of gray ointment on the unwounded skin, pass through the latter into the organism?
2. Which are the channels through which the mercury enters the system?
3. Can the proposition, that mercury in metallic form passes from the skin into the organism and circulates in the blood, be verified by the microscope?
4. Can mercury, introduced by inunction, generally be detected chemically or microscopically in the internal organs?
5. Is corrosive sublimate, dissolved in baths, absorbed through the unbroken skin?

It is necessary to remark, in the first place, that the known physical peculiarities of mercurial globules in gray ointment can only be recognized within certain limits, beyond which even a skilled microscopist cannot distinguish between them and air-bubbles, molecular fat, molecular detritus, micrococcus, and carbonate of lime. This being premised, the result of many

laborious researches is submitted. The question respecting absorption by the skin can only be decided by the combined methods, on the one hand of verifying the entry of globules into the skin, on the other hand of recognizing mercury in the blood and tissues by chemical means. For the latter purpose I employed the method of Prof. Schneider, which will detect the smallest quantities of mercury.

I experimented on dogs, cats, guinea-pigs, rabbits, frogs, on the skin of newly still-born infants, and on living men; also on parts of the body that were destined to amputation; finally, on the bladder and the pericardium. With animals, in order to prevent them from licking away the application, bandages of various kinds were employed (rollers, strips of adhesive plaster); also injection of curara, or solution of chloral hydrate, was performed after several hours' inunction, after which the animal still lived for twenty-four hours, and four hours, respectively.

Test-leaves of gold were inserted into the subcutaneous connective tissue and into the thoracic and abdominal cavities, to become amalgamated by the mercury. The opinion that mercury is *inhaled* during inunction is contradicted by the fact that high temperatures are required for its vaporization; but in order to prevent all doubt whether fine particles of mercury might not enter the mouth, the author passed the head and anterior part of the animal through a fitting opening in the window of the room where the inunction was done, and thus kept him entirely free from the possibility of inhaling the metal. With the same precautions, baths of corrosive sublimate were applied for several hours to the trunk of the animal's body: the presence of mercury in the internal organs was then indisputably verified.

From his experimental researches the author came to the conclusion that in inunction of gray ointment on an unbroken skin, mercurial globules pass into the hair-sheath, then into the bulb, and into the superficially-opening sebaceous glands (less into those that open into the hair-sheath), and into the upper part of the sweat-glands. In what way and in what form they get thence into the circulation he could not discover; probably they were changed to bichloride and dissolved by the superficial glandular system.

But in the blood and internal organs, mercury which has been introduced by inunction or by sublimate baths can only be detected by chemical means. Mercury could not be detected by chemical means in the subcutaneous tissue. Mercury does not penetrate through the horny epidermis.—*Practitioner*, November, 1871.

SYPHILITIC AFFECTIONS OF THE LUNG.*

By WILSON FOX, M.D., F.R.C.P.,

Holme Professor of Clinical Medicine in University College, London.

The manner in which the tissue of the lung may be affected by the syphilitic poison, although it has been made the subject of much recent research, still requires a more accurate definition than has yet been attained.

The opinion that certain forms of phthisis may arise from changes in the pulmonary tissue, due to the syphilitic poison, is no new one.

Morgagni noticed the frequent connection of tubercle with this dyscrasia, and Portal and Morton described a syphilitic phthisis, but failed to show that any special pathological changes were connected with this condition. Dr. Graves and Dr. Stokes† have both entertained a similar opinion, based upon the success of the mercurial treatment of bronchitis in patients who had formerly been the subjects of venereal sores. Bayle, Laennec, and Louis failed to find any evidence of a special form of phthisis which could be distinguished as syphilitic, and it is only within recent periods that any changes have been identified in the lungs, which can probably be attributed to this cause.

The difficulty of the inquiry lies in establishing any certain criteria by which such alterations can be distinguished from the changes produced either by simple inflammatory, or by the tubercular processes. Each of these may affect syphilitic patients, and may run a course apparently modified either clinically or pathologically by the specific dyscrasia; and looking at the general history of syphilitic affections, it is at least probable

* I have not met with any indubitable instances of these affections in my pathological studies on the diseases of the lungs, and the information contained under this head has been drawn from the following authors, in addition to those alluded to subsequently:—

Virchow, *Archiv*, xv., and *Krankhaften Geschwülste*, vol. ii., historical data and complete references. E. Wagner, *Archiv der Heilkunde*, 1863, vol. iv. Foerster, *Würzb. Med. Zeitsch.*, 1863, vol. iv. Berkeley Hill, *Syphilis and Local Contagious Disorders*, many references. Von Baerensprung, *Die Hereditäre Syphilis;* many cases, microscopic figures of gummata in the lungs. Lancereaux, *Traité Hist. et Prat. de la Syphilis;* extensive bibliography, numerous cases. Lebert, *Traité d'Anat. Path.*, Pl. xciii., figures of gummata in the lungs. Wilks, *Guy's Hosp. Rep.*, 1863, and *Path. Soc. Trans.*, ix., figures of gummata in the lungs; also *A Lecture on Syphilis.* Pihan Dufeillay, *Des Dégénérescences Syphilitiques des Viscères; Union Med.*, 1861, and in *Bull. Soc. Anat.*, 1861; comments in a case of Cornil's; numerous references and critical observations.

† Graves, *Clin. Med.*, ii., 27. Stokes, *Dis. of Chest*, 94–432.

that the lungs are less prone to suffer from secondary or tertiary affections of a syphilitic character than the mucous membranes of the upper air-passages, or than the skin, the eye, or the bones.

What their comparative liability may be in respect to the liver, the spleen, the testicle, or the brain, is a point which must yet be determined by further research.

In the lungs of syphilitic patients which I have examined, I have seen no appearances differing from those of ordinary pneumonia, of ordinary tubercle, or of tubercular or cheesy infiltrations; and one marked case of this kind has come under my observation where there was the most distinct syphilitic ulceration of the larynx, but where the lungs only presented a gray infiltration, together with tubercles and indurations referable to a previous attack affecting the apices, the cure of which I had myself witnessed at an earlier date. Other instances of an analogous kind have come under my observation, where the most careful microscopic examination failed to reveal any peculiarities which I could ascribe to a syphilitic process.

The inquiry into the nature of changes attributable to syphilis is therefore for the present almost a purely pathological one, though the importance of the question in its clinical aspect can scarcely be overrated. A large amount of the evidence on this subject is derived from premature or still-born children, the offspring of syphilitic parents; but some cases are recorded where syphilitic gummata have been found in the lungs of adults.

There are two sets of changes in the lungs, regarding the syphilitic nature of which there is a considerable unanimity of opinion. In another large class there is more doubt as to their true connection with this poison. The former are at least rare, and only isolated instances are recorded by observers having large opportunities for pathological research. The latter class requires a most careful and critical examination before their specific nature can be admitted.

The most authentic changes in the lungs which can be ascribed to syphilis are gummata, or masses of low fibrous growth, evincing a great tendency to necrobiotic changes of the dry cheesy type, and which are very closely analogous to similar masses found in the liver and in other internal organs. They are found in the lungs of adults and of newly-born syphilitic children. In the former, however, they are so extremely rare, that Lanceraux has only been able to collect ten cases by different authors. They are irregularly distributed through the lungs, having no special seat of predilection, but according to Wagner they are more common in the deeper than in the peripheric

parts. They may be single or multiple, and their dimensions may vary from the size of a pea to that of a walnut, or even of a goose's egg.* They are generally rounded, rarely irregular in outline, and are sharply defined, but are not always encapsuled.† In their earlier stages they are gray or brownish-red, completely homogeneous to the naked eye, and are firm and dryish; later they become of a comparatively uniform yellowish tint, but still maintaining their dry, firm character. In some instances, however, they soften and form actual or, more commonly, potential cavities.‡ On microscopic examination they are found to consist of imperfectly formed fibres, which are often granular and are intermixed with abortive nuclei and a few fibre-cells. Both the nuclei and the cells are commonly found in various stages of fatty degeneration. The lung tissue is entirely destroyed by this growth, by which the walls of the alveoli become progres sively thickened, until the cavity of the vesicles is obliterated, while the epithelium lining them appears to participate but little in the change. In some cases the bronchi show an infiltration of the submucous cellular tissue with a fibro-nucleated growth, which may form small prominences on the surface. Similar masses are sometimes found in their deeper structure, but these as a general rule are unaltered. In these changes the preponderant and distinctive character consists in the growth of an indurating fibrous tissue, mingled with abortive nuclei, into distinct masses, and presenting a strong tendency to an early necrotic change.

Another form, termed by Wagner the "diffused," is the appearance described by Virchow§ and Weber‖ as the "white hepatization of the lungs" of newly-born children; it has also been named "epithelioma of the lungs," by Lorain and Robin¶; and its syphilitic character has been shown by the last-named authors, who traced a relation between it and syphilitic pem-

* E. Wagner.

† Ib. (*loc. cit.*). Von. Baerensprung describes smaller masses in the lungs of newly-born children as sharply defined by a layer of well-developed fibrous tissue. The nodules in Dr. Wilk's case do not appear to have been thus encapsuled.

‡ Dr. Wilk's (*loc. cit.*). Ricord (*Clin. Iconograph.*, Pl. xxviii.) gives a case where numerous softened masses were found in the lungs, but he questions whether they were not the result of pyæmic infection. Depaul, one of the earliest authors who has published authentic observations on this subject (*Bull. Soc. Anat.*, 1837; *Gaz. Méd.*, 1851; *Mém. Acad. Imp. de Méd.*, 1853), has also found the centre of these masses softening into a puriform fluid, and sometimes presenting real abcesses, whose walls were formed by a yellowish gray and indurated tissue.

§ *Archiv*, i., 146.

‖ *Path. Anat. de Neugeborenen*, ii., 47.

¶ *Gaz. Méd.*, par 1855.

phigus, and also by Hecker,* Howitz,† and Wagner,‡ and this has also been admitted by Virchow. Lungs in this state are distended so as to completely fill the cavity of the thorax, and to bear the impress of the ribs. The pleura covering them is usually found unaffected. They are white, dense, firm, and hard. They occasionally admit of partial insufflation, but this is not constant. Their weight, when the affection is general, is four or five times greater than natural. Their color is whitish with a shade of yellow, and it is uniform without any shading. Their section is smooth and opaque. They are resistant in some cases; in others, as described by Weber, the finger can be pressed into them as into a fatty liver. They are quite exsanguine, and not a trace of blood or of the smaller blood-vessels can be discovered in them. The lobular texture is apparent; the interlobular tissue sometimes presents a slightly reddish tinge. The bronchi contain a tough mucus. The bronchial glands are enlarged, greyish, homogeneous, or in part presenting a dry, cheesy aspect.

The extent of infiltration varies—sometimes the whole of both lungs are affected,§ sometimes only parts.

When the affection is partial, there may be found, in addition to the general infiltration, isolated spots of the same kind, but resembling more or less the gummata before described, which sometimes merge at their margins into the neighboring infiltration. There is some discrepancy between the statements of different observers regarding the histological characters of this consolidation. Virchow described the air-vesicles as filled with epithelial cells, and Robin and Lorain make the same statement, and add that this process extends into the ultimate bronchial ramifications—but that at the same time the walls of the alveoli are thickened and rigid. Weber described the contents of the alveoli as cellular; while Wagner, from his recent researches, says that the characteristic by which this change may be distinguished from grey hepatization is that nothing can be brushed or washed out from the interior of the vesicles, and that the disease essentially consists in a thickening of the alveolar walls, by which the cavity of the vesicles is gradually obliterated, and

* *Verhand. der Berlin. Geburtshülf Gesell.*, 1854, viii., 130.

† *Behrend's Syphiologie*, 1862, iii., 611. ‡ *Loc. cit.*

§ Wagner in six cases found the whole of both lungs affected four times; once the half, and once the sixth part of the lung. Kostlin (*Arch. Phys. Heilk.*, xvii.) met with it in four cases, generally limited to the lower lobe, or in isolated masses, varying in size from a pea to a pigeon's egg. In one child, who lived a fortnight after birth, the signs of the disease in the lungs appeared coincidently with ecthymatous pustules, with a measley rash, and with excoriations of the skin.

that in this process the epithelial lining is but little affected. This thickening takes place by the growth of an imperfect and scantily fibrillated tissue mingled with nuclei, and of a few fibre cells which are found in various stages of fatty and molecular disintegration; granular and fatty *débris* are also found in large proportions throughout the tissue. The interlobular texture is normal or contains a small amount of nuclear and cell growth. The vessels and capillaries are almost completely destroyed in the affected parts. The submucous tissue of the bronchi is affected in the same manner as has been described as occurring in connection with the gummata, by a growth of nuclei limited to the superficial structures.

The bronchial glands are enlarged, and show concentric masses of cells bounded by a tough fibre tissue. It will be observed that in both of these forms of disease the essential characteristic of the change described consists in a thickening of the walls of the air-vesicles by a growth of imperfect fibre tissue mingled with nuclei which tends to pass into an early molecular detritus, and that this change thus produces a structure apparently identical with the syphilitic gummata found in the liver.

Even in this form it would be very difficult to state any precise definition which might absolutely distinguish the process from the similar changes which occur in tubercular growths, and in the thickenings which affect the walls of the air-vesicles in tubercular pneumonia.*

This difficulty is further increased in relation to some of the other changes which are frequently found in the lungs of syphilitic children, and also in some cases of adults. These, if separately distinguished, may be enumerated as follows:—

(*a.*) Foerster has shown that lobular, vesicular, and bronchopneumonia, either in a disseminated or in a confluent form, is very common in the lungs of children affected with hereditary syphilis and dying shortly after birth. In the majority of cases such pneumonias are identical in character with the ordinary forms of the disease, and consist only of an excessive development of epithelial cells, and of their derivatives filling the vesicles.

(*b.*) Suppurative changes occur at times in these spots and give rise to abscesses, the specific nature of which, however,

* Lancereaux (426) says that large granule cells are not found in tubercular growths; but this distinction is not, I believe, to be relied upon. My own observations on tubercular formations have convinced me that such granular cells are by no means uncommon in these.

may still be considered doubtful, since similar processes also occur in the non-syphilitic forms of catarrhal pneumonia.

(*c.*) Foerster, however, has in some of these cases met with a gradual thickening of the walls of the alveoli by the growth of a fibre tissue mingled with ovoid nuclei, surrounding the spots of lobular pneumonia. These then become hard, smooth, pale, and glistening, and in a later stage they show a yellow change, which gradually extends throughout the nodule. This process has the greatest analogy with the growth of tubercular granulations, and if due to the syphilitic poison it would establish a close anatomical affinity between its effects and the changes which are most distinctive of tubercles. Similar appearances have been described, though on rather a larger scale, by Von Baerensprung and others, when the nodules so formed may attain the size of a walnut. Virchow has also remarked that these may co-exist with peribronchitic thickenings, and that they may pass in spots into ulceration; and he further observes that, when met with in still-born children of syphilitic parentage, their specific nature is rendered the more probable from the fact that tubercle proper is never met with as a disease of the fœtus.

(*d.*) Virchow is also disposed to regard as being in some case of syphilitic origin, indurated masses of fibrous structure more or less pigmented, and presenting a raspberry-like appearance, which are found scattered through the lungs. They are either seated immediately under the pleura, where they cause puckering and contraction, and also around the bronchi, where they form a cicatricial tissue, and they are often attended by pleural adhesions; cheesy spots are not uncommonly found scattered through them. The nature of these is, however, still more doubtful, since such masses are very common in the indurating form of tuberculosis when there is no suspicion of syphilis.* Virchow states that the more fibrous structures present no distinctive features of difference from the indurating forms of chronic pneumonia which occur in the "grinder's asthma," and probably also in the whole class of diseases produced by the inhalation of irritating solid particles into the lungs.

(*e.*) Virchow is further disposed to consider that fibrous induration of the pleura, and also certain forms of peribronchitic thickening which extend into the pulmonary tissue, may be due to the syphilitic dyscrasia, and that they may hold a place anal-

* Addison regarded these as pneumonia, and Virchow also speaks of them as the results of chronic pneumonia. For the reasons before given I venture still to express an opinion respecting their tubercular nature. An appearance of this kind is described by Cornil as syphilitic (*Bull. Soc. Anat.*, 1861).

ogous to the cirrhotic indurations of the liver, and to indurations which are met with in the testicle under the same influence. Dr. Wilks has also raised the question whether some forms of "cirrhosis" of the lung may not have a similar origin, but this point still remains to be settled by further observation.*

(*f.*) Virchow has also met with a change in the lungs closely analogous to the brown induration to be hereafter described, but occurring independently of heart diseases, and which from its associations he thinks may also be placed in this category.

(*g.*) Dr. Hermann Weber,† in a case where there was evidence of constitutional syphilis, and where nodules which he was disposed to regard as early forms of gummata existed in the liver, found in the lungs a general enlargement of the superficial lymphatics, which were filled with a thickened cheesy lymph which could be expressed from their interior. These enlarged lymphatics presented on section the appearance of white spots scattered over the lungs; their contents presented granular corpuscles with multiple nuclei. The bronchial glands were also enlarged, softened, and crowded with cells exhibiting considerable activity of growth. Dr. Weber regarded it as doubtful whether the pathological condition of the pulmonary lymphatics or of the bronchial glands constituted the primary affection. The appearances described, as Dr. Weber himself considered, differed in many respects from those which have hitherto been regarded as syphilitic.

Syphilitic growths in the lungs certainly bear a closer resemblance to tuberculous formations than is presented by almost any other morbid change in this organ.

It is useless at present to revive the former speculations which have been held with respect to the influence of syphilis on the production of tubercle. The question, however, may be looked at in another aspect, and it would appear to be a subject for inquiry, how far a pre-existing "tuberculous" or "scrofulous" constitution may aid in the development of these special local manifestations. Syphilis has long been known to exhibit

* Wagner relates a case of the same kind. Vidal (*Traité des Mal. Vén.*) describes in a syphilitic patient a condition of fibrous induration surrounding the bronchi and extending into the pulmonary tissue. It was chiefly limited to the lower lobes. The condition of the bronchi is not mentioned. Vidal notices the resemblance of the tissue to that produced by a chronic periostitis. Proof of the syphilitic nature of these is, however, wanting. Lancereaux (*loc. cit.*, p. 424) considers that cicatricial contractions of the lung may also be due to this cause, but this must be regarded at present as being simply hypothetical.

† *Path. Soc. Trans.*, xvii. (Two plates of the appearances in the lungs and liver.)

its most virulent characters in patients of this diathesis, and it appears to be not impossible that such a predisposition may render the lungs specially liable to suffer from the syphilitic affection, the characters of which may be partially modified by the tuberculous tendency. Tubercular changes are in many points of view so closely allied to the processes of inflammation that it has become increasingly difficult with further research to assign to them any specific character; but in the lungs at least, whether occurring in the form of granulations or of an infiltration, they are almost constantly attended by a fibro-nucleated growth of the alveolar wall, in which sometimes the fibrous and sometimes the nuclear element predominates. It would appear also by no means improbable, in the light of recent researches on the production of tuberculosis in the lower animals,* that various poisons, as well as simple irritants, may serve as the starting-points for tubercular changes in predisposed individuals. I would not, without much further personal experience than I possess on this subject, venture to affirm that syphilitic changes in the lungs are identical with tubercle; but it is impossible to study the observations of those who have investigated both processes, and particularly the researches of Virchow, without being convinced of the close analogy between them; and it would appear to me that the conclusion that some of the changes thus described as syphilitic have a quasi-tubercular nature, is at least quite as likely to be correct as the converse, viz., that a large number of processes hitherto considered tubercular, should be ascribed, when found in syphilitic patients, to the exclusively specific effect of this dyscrasia.

The clinical history of these changes is as yet an almost untrodden ground.

The majority of the reputed syphilitic affections of the lungs have been observed in still-born children, or when found in adults, have only been accidentally discovered on post-mortem examination. Lancereaux cites a few instances where pulmonary symptoms had been present before death. In one of these, quoted from Vidal, and where the chief change was peribronchitic induration, there were the physical signs of consolidation at the bases, associated with slight hæmoptysis, little cough, and no fever, but with a dyspnœa gradually increasing

* It is certainly a remarkable fact that in my experiments guinea-pigs inoculated with syphilitic virus were the only class that completely escaped secondary tuberculization; but this, when the difference of species is considered, would be no argument against the possible effects of this virus in the human subject. See lecture by the author *On the Artificial Production of Tubercle.*

in intensity, and apparently proving at last one of the causes of death. The duration of the disease in this case, after pulmonary symptoms were first observed, extended over two years.

In another case under Lancereaux's own observation, and where the presumed gummata had formed cavities surrounded by much induration, the affection was limited to one lung, and the physical signs were those of induration with excavation; hæmoptysis, however, occurred also in this instance, and the sputa, at first scanty, became subsequently copious and fœtid; œdema of the legs and slight pyrexia were present, and the patient died cachectic.

Lancereaux remarks that a unilateral affection of the lung, with signs of chronic induration or excavation, and in the presence of a syphilitic history, may lead to the diagnosis of its specific origin, but it must be remembered that the syphilitic affection is not invariably confined to a single lung.

In respect to treatment, Lancereaux cites several cases where a mercurial course has been followed by the cessation of phthisical symptoms, and by the improvement in some instances of the physical signs of the disease. I have more than once subjected phthisical patients with a history of syphilis, to treatment both by mercury and by iodide of potassium, but the results which I have hitherto obtained have been by no means favorable. The treatment by iodide of potassium would appear to be the least dangerous, and the most deserving of a more extensive trial.—*Reynolds' System of Medicine*, vol. iii., 1871.

Epitome of Current Literature.

On the Retinitis associated with Syphilis.—Mr. Oglesby regards the effusion of serum or lymph into the nervous textures of the retina as a characteristic feature of this disease. It not infrequently happens that during the earlier stages the ophthalmoscopic evidence is negative, from the fact that the effusion of serum is so slight as to escape detection even by the most practical observer; or, on the other hand, the deposition of lymph may be so great as to cause immediate and alarming symptoms; then the ophthalmoscopic evidence is at once apparent.

The pathological changes which take place are very interesting, more especially so when we are cognizant that such changes are also to be found in the retina of those laboring under the inherited form of the disease.

Patients suffering from the early symptoms of this disease complain of misty vision, objects appearing ill-defined in outline; bright light is shunned, and application to close work is followed by severe pain in the globe of the eye, temple, and brow.

Hyperæmia of the retina is one of the earliest symptoms of the disease; and as it occurs in an active form, its early recognition is of the utmost importance, so that means may be employed to stay, if possible, the inflammatory mischief which usually follows. The retinal vessels are numerous and enlarged, and the capillary tint of the disc is heightened.

Effusion of serum into the nervous textures of the retina follows closely upon active congestion. It is characterized by the gray hazy look which it imparts, and is most readily seen when it encircles the disk, rendering its outline indistinct. The effusion poured out does not, as a rule, spread uniformly, but rather selects certain sections of the retina, and in no part is it to be found more frequently than in the neighborhood of the yellow spot.

In those cases in which the effusion has invaded the entire membrane, we not uncommonly meet with turbidity of the vitreous humor, and often of a density sufficient to baffle any attempt at a thorough ophthalmoscopic examination. In such

cases the mapping out of the field of vision is of essential importance.

Should great infiltration of serum have taken place around the edges of the disk, tortuosity of the veins will be a prominent ophthalmoscopic appearance.

The effusion of lymph into the nervous textures is a symptom of serious significance. If it should take place with great rapidity, purulent infiltration of the entire membrane may result, with very rapid destruction of vision. On the other hand, if the deposition of lymph be gradual, and confined to isolated portions of the retina, the prognosis may be a hopeful one. In the latter condition, the patches, singularly enough, are frequently found in the course of one or other of the large retinal vessels. They somewhat resemble in appearance the bright spots seen in nephritic retinitis, and have not infrequently been mistaken for them. On closer examination there is a marked difference, for they are not so brilliant in color, and there is an evident peculiarity about their size and shape, which to a practised eye is easily recognizable. In a case of great interest there occurred two patches of lymph, one slightly above the disk, the other immediately below, which had been mistaken for congenital nerve-patches by more than one observer. This case occurred in a young man suffering from hereditary syphilis. Numerous cases of this kind are to be found from time to time in the out-patient room of an ophthalmic hospital; and since the writer's attention was first drawn to the subject, he has been able to trace the disease through many of its phases.

Syphilitic retinitis is often present during acute attacks of iritis, and not infrequently follows inflammation of the choroid, or occurs simultaneously with that disease. Unlike the retinitis of albuminuria, it is often confined to one eye.

If the field of vision be carefully mapped in a number of cases, it will be found that peripheral contraction is a well-marked symptom during the early stages of the disease.

Hypertrophy of the connective tissue, deposition of pigment, and atrophy of retina, may all occur as sequences of the disease.

With regard to treatment, mercury is the most suitable remedy, and has a more rapid and certain influence in checking the disease than any other drug. Mercurial inunction is perhaps the least unpleasant manner of producing its specific effect. Next in merit stands the iodide of potassium, which, when given in large and increasing doses, often acts beneficially.—*On the Use of the Ophthalmoscope*—ALLBUTT.

Transmission of Syphilis by Vaccination. — Köbner adds to the detail of two cases of indubitable vaccine-syphilis a thorough investigation into the possibility of such transmission and the prophylaxis against the same. The author demonstrates from cases collected from the most different sources, as well as from one described by himself, that it is not at all rare for both contagions to be present upon the same arm. This occurs either in the form of a pustule resembling externally the vaccine pustule present by its side, but exhibiting at its base a positive syphilitic infiltration; or a pemphigus vesicle, or an acne, or a varicella syphilitica, in cases of general dermal eruption, presents itself by the side of the vaccine pustule and is regarded only as a supernumerary vaccine pustule. Such cases explain to us how it is, that of several persons vaccinated with lymph from the same individual, some become affected with syphilis, while others escape: the non-affected having been vaccinated from the genuine vaccine pustule. Syphilis may be further transmitted by vaccine mingled with pus without the existence of the characteristic syphilitic eruption, the pus from a superficial ulcer being sufficient to transmit syphilis. This view is confirmed by the fact that transmission of syphilis occurs most frequently after the eighth day, after the period, thus, of the suppuration of the pustule. Finally, syphilis may be transmitted by a mixture of vaccine and blood, although this occurs but very rarely. The Viennois' blood hypothesis, as the author clearly demonstrates, is by no means sufficient for the explanation of all cases of syphilis.

The author claims, then, that public vaccination and revaccination from arm to arm, as now performed in Germany and elsewhere, affords no guarantee against syphilitic transmission, and that it is an obligation of the State, as a supplement to its present law, to secure a sufficiency of scientific physicians to perform vaccination and to secure at the same time a constant regeneration of vaccine lymph. The greatest difficulty in all prophylaxis is in the selection of the proper subjects from whom lymph may be taken. It is best, on account of possible congenital or from the nurse-acquired syphilis, to select only those infants which are already over a year in age, and then only from families with which the physician is acquainted. Illegitimate children should not be used. Because the pustule appears perfectly normal on the seventh or eighth day is no evidence of the condition of the person from whom the lymph was derived. Virus containing blood or pus is always to be avoided under all circumstances, as are also pustules late or protracted in development.—*Archiv für Dermatologie und Syphilis*, 1871.

Syphilis inoculated on the Hand.—Mr. Jonathan Hutchinson reports the following interesting case of a man who contracted syphilis by scratching the knuckle against an opponent's tooth. The patient, a policeman, aged 30, at present has a very copious secondary syphilitic eruption of the mixed tubercular and squamous types, and in some parts, especially on the lower extremities, tends to become rupial. He states that it has been out for about five weeks. He denies having had any sore on the usual position, and a careful examination of his genitals convinced Mr. Hutchinson that no trace of a chancre existed there; and the same remark applies to his mouth and lips. There are no enlarged inguinal glands. On searching for a chancre in other parts, Mr. Hutchinson found an open sore on the dorsal surface of his right middle finger, near to the metacarpo-phalangeal joint; it is now of irregular shape, about as large as a fourpenny-piece, and does not present any induration characteristic of syphilis. He was also found to have a bullet-like enlargement of the axillary glands on the same side. On being questioned as to the origin of the sore on the finger, he stated that it originated in a scratch made by the tooth of another man, whom he struck in the mouth with his closed fist while taking him prisoner; this was about three months ago. He noticed that he made the man's mouth bleed a little, but cannot say whether there were any sores about his mouth or lips. The scratch on his finger bled slightly at the time. It healed up, but remained for some time (as he expressed it voluntarily) a hard substance, and red; it then ulcerated. The sore is now rapidly healing.—*Medical Times and Gazette*, December, 1871.

Catheterism; Syncope; Embolism; Death.—Mr. Francis D. Lys reports the following case, which illustrates the necessity for caution in performing the simplest surgical operation on persons suffering from any cardiac disease. I. S., a very stout man, aged 62, had always enjoyed good health till within the last few months, during which he has suffered from atonic dyspeptic symptoms, for which he consulted me. His pulse was weak, and he complained of shortness of breath when walking up-hill. While absent from home he had the desire to pass his urine, but was prevented. On reaching his home he had lost the power to relieve himself. I passed a No. 10 catheter while he was in the recumbent position; he then sat up in order that he might the better empty his bladder, which contained about fifteen ounces. He now complained of feeling faint, which induced me to lay him down and administer stimulants. He remained almost pulseless for more than

an hour, and it was quite two hours before he rallied sufficiently to admit of his returning home from my surgery. Oct. 9th.—He has passed urine without any difficulty. He has been sick several times. Pulse very weak and intermittent. Gave him milk, beef-tea, and brandy mixture, and ordered a synapism to the epigastrium. Oct. 10th.—Pulse scarcely perceptible. He had several convulsive attacks, and died in the evening. No post-mortem examination was made. Mr. Lys thinks that the man had a fatty heart, and that during the syncope caused by the shock of passing the catheter, a clot formed either in the heart or aorta, which prevented his recovery.—*Lancet*, November, 1871.

Elephantiasis Græcorum.—Dr. Hawtrey Benson reports the following particulars of an interesting case of Elephantiasis Græcorum. The patient, a man 47 years of age, a native of Ireland. He had served in India for twenty-seven years, but returned to Ireland in 1869. Nine months ago his health began to fail, and slightly febrile symptoms appeared. He complained of sensations of creeping, itching, and tingling in the backs of the hands, subsequently extending to the face, neck, and shoulders. On coming under the care of Dr. Stearne, of Thomastown, that gentleman found the patient's body to be in places of a dusky, almost coppery hue. In other parts, too, the skin was indurated. Again, in certain situations, elevations were discovered. When he was sent to Dublin the mouth had become engaged, and under the tongue several tubercles had ulcerated. The urine was healthy; no anæsthesia existed. He was treated with arsenic, warm baths, etc.—*Transactions of the Medical Society of the College of Physicians, Ireland.* November, 1871.

Urethral Fever following Catheterism.—Mr. W. Mitchell Banks calls attention to the following points of interest met with in urethral fever:—

1. That a careful distinction must be made between true urethral fever and pyæmia resulting from operative interference with the urinary passages.
2. That urethral fever is due to shocks propagated by the sympathetic nervous system; and that if certain recent views as to the etiology of ague be correct, a considerable anology can be shown to exist between the two diseases.
3. That urethral fever may assume any degree of intensity, from a rigor and subsequent general *malaise* to such serious prostration as may end fatally after some days.
4. That occasional rare cases occur where the nervous shock

himself, in the left eye the cornea was hazy; at the lower and inner margin of the cornea there was a staphyloma of the sclera; there was complete posterior synechia of the iris, with exudation in the anterior chamber; the conjunctiva and sclera were hyperæmic; tension was normal; there was bare perception of light. In the right eye the cornea was hazy; there were posterior synechiæ at the lower and outer edge of the pupil; the anterior chamber contained exudation; the conjunctiva was hyperæmic; he could count fingers. February 15, 1870, the right eye had improved. The left eye became more painful and began to protrude, until the lids could hardly be closed.

March 2d.—The left eye was removed. The eye was divided by a section passing through the apex of the staphyloma. The staphyloma was situated in the sclera opposite the junction of the ciliary body and choroid. The staphyloma and the anterior half of the globe were filled with a white mass. The sclera as it approached the staphyloma was pushed outward, thinned, and finally lost in the new growth. That portion of it which formed the staphyloma contained many lymphoid cells between its fibres, and at the apex of the staphyloma the fibres disappeared, and nothing but cells could be seen.

The conjunctival epithelium was but little altered. Around the staphyloma the stroma of the conjunctiva was much thickened and infiltrated with cells, its vessels were distended with blood. The anterior chamber was filled with a blood-clot. The iris was thickened; in its stroma were lymphoid cells and coagulated fibrine; the pupil was closed. The choroid over the fundus was normal. As it approached the staphyloma it became thick and of a gray color. The thickening was due to the presence of lymphoid cells and coagulated fibrine. Near the apex of the staphyloma all the normal elements of the choroid disappeared, and nothing but round cells could be seen. No changes could be seen in the pigmented cells of the choroid, except that they had disappeared. The ciliary body was everywhere thickened and filled with cells. Its periphery extended into the staphyloma, and was continuous with the new growth there. The lens was small. Its capsule remained, partly filled with broken lens-fibres. The retina was detached in a funnel-shape; its anterior portion was lost in the new growth. Of the white mass, which filled the anterior portion of the globe and the staphyloma, the anterior portions were composed of lymphoid cells, with a scanty stroma of connective tissue, the posterior portions of coagulated fibrine entangling cells.

These two cases differ both in the situation and character of the lesion. In the first case, the new growth has more of the

character of a permanent new growth than of an inflammatory product. It is composed entirely of cells, in some places arranged in a thick fibrous stroma. The new growth originates in the iris and ciliary body, and fills up the space formed by the protrusion of the cornea. At the edge of the cornea the sclera is infiltrated and softened with cells so as to form an annular staphyloma. In the second case, on the other hand, the growth is more distinctly inflammatory. The new cells are mixed with a plentiful exudation of fibrine. The iris and ciliary body are but little affected, while the choroid is involved over a considerable area.—*Transactions of the American Ophthalmological Society.*—July, 1871.

Protection Acquired by the Human Skin and other Tissues, against the Action of Certain Animal Poisons, after Repeated Inoculations.—Dr. James C. White, of Boston, made some very interesting remarks upon this subject at a recent meeting of the Boston Society of Medical Sciences. He alluded to the greater or less immunity acquired by the system after an attack of either of the exanthemata or of syphilis, and also to the influence of acclimatization to the malarious poison. He suggests that, perhaps, a like immunity may be gained by repeated inoculations into the blood of small portions of the poisons of venomous snakes, and he explains the immunity which they enjoy against their own poison to a gradual absorption of it into their system through life in very minute quantities. He thinks that the bites of such insects as the louse, the flea, the bedbug, and mosquito are also attended by the introduction into the system of minute quantities of a virus, and he thinks that this view has the support of the well-known fact that after a time the wounds inflicted by these insects cause very much less reaction than at first, so much so that in many persons of the lower classes their presence may be wholly ignored. He called attention to the fact that the wound produced by each of these insects has its own peculiar physical appearances, which cannot be imitated by an incision by any instrument, and which he thinks is modified in appearance in such instance by the nature of the poison acting upon the system. He thinks it probable that, after long-continued and numerous bites by these insects, such a change may be produced in our tissues by this virus that after a time they become habituated to it, and then it ceases to produce its constitutional reaction. Dr. White cites an instance in which a family of emigrants who never had been bitten by mosquitoes, and who, upon their arrival in this country, suffered fearfully, so much so that in one of the younger members pustules

and bullæ were produced.—*Boston Medical and Surgical Journal*, Nov. 9, 1871.

The Causes of Danger Accompanying Boils and Carbuncles of the Face.—Dr. Reverdin observes:—1. That anthrax and furuncle of the face are particularly dangerous. 2. This depends upon the tendency of the disease to be accompanied by phlebitis. 3. Which occasions death either by extension to the sinuses of the dura mater, or pyæmic poisoning. 4. Carbuncle of the lip often inclines to phlebitis, oftener than when it attacks other parts of the face, which is due to the peculiar anatomical character of the lips. 5. Carbuncle of the lips has nothing in common with pustula maligna. A deep and swiftly-made incision is the best means of preventing or cutting short phlebitis. The peculiar structure of the lip, from which the danger of carbuncle proceeds, consists in its rich musculature, and the small quantity of fat it contains. Between the skin and the mucous layer only muscular fibres occur, interwoven with vessels and glands, whilst some bands of delicate connective tissue lie beneath it. Such tissue is very distensible, and when inflammation arises in it tension is rapidly produced, which easily propagates itself to the veins, and then favors thromboses.—*Gaz. Lyon Méd.*, 1871.

Operation for the Loss of a Large Portion of the Urethra.—Sir Henry Thompson exhibited, at a meeting of the Clinical Society of London, a patient on whom he had successfully performed an operation for the loss of a large portion of the urethra. The man had been the subject of large extravasation of urine, distending the scrotum and rising above the pubes, whence it was evacuated by free incisions. The resulting sloughing destroyed the skin of the penis, and a full inch of the urethra, just anterior to the scrotum. When the neighboring parts were sound, Sir Henry, having introduced a grooved staff into the bladder, opened the urethra in the perineum, and passed a gum-elastic catheter through the wound into the bladder, and retained it permanently. He then broadly pared the margin of the wound, dissected a large flap from the side of the scrotum, and placed it in good apposition upon the raw surfaces, attaching it with silk sutures, and covering in completely the urethral wound. All the urine now flowed by catheter into a vessel, and in a few days firm union had taken place, except at one small spot. The catheter was changed in a fortnight, and the second one was retained for five weeks. On removing this, the perineal wound speedily closed, and a No. 8 catheter could be passed through the entire

urethra into the bladder. The patient had since learned to do this for himself. There now remained only a very small orifice, which could be readily closed by galvanic wire, or by some plastic operation. Sir Henry dwelt upon the importance of a constant free evacuation of the urine in these cases, so as to bring about a state of quietude to the diseased passages; and for this purpose he was in the habit of insisting upon the patient acquiring for himself the habit of drawing off his water by catheter. The great bar to success, he thought, had almost invariably been the presence of urine percolating, at every act of micturition, between the fresh surfaces newly adjusted by the surgeon. The procedure adopted in the present case had been adopted on two occasions in France, by Legalas and Ricord.—*Medical Times and Gazette*, December, 1870.

Exophthalmus Occasioned by Syphilis.—Dr. Gregorie relates the case of a boy, aged seventeen, who came into his hospital, 22d April, 1871, with eczema, periostitis of the right humerus, and of both tibias, and right exophthalmus and osteoscopic pains. He related how that in his early youth he had suffered from pains in the bones. The present affection commenced about the New Year of 1871, with a swelling of the tibiæ and the right humerus; then soon nocturnal pains followed in the right orbit, and a fœtid flow appeared from the nostrils, and in the month of March the eyeballs began to be pushed forward from the orbit, were very painful, and sight much interfered with. In this case there could scarcely be any doubt that the orbital affection was of syphilitic nature, and caused by a node in the orbit. The ordinary remedy was then used, *i. e.*, ten grains of iodide of potassium daily, with painting over the diseased parts with tincture of iodine. Under this treatment the patient was enabled to leave hospital quite cured, on May 29th. We regret that Dr. Gregorie has not stated whether he had reason to consider this a case of hereditary syphilis or not.—*Wien Med. Zeit.*, September, 1871.

Dermoid Complications in Rheumatism.—Dr. Bailey reports several cases of rheumatism complicated by skin affections, as herpes, urticaria, etc. In all cases the urine was scanty, and in females amenorrhœa likewise occurred. The remedies relied on were iodide of potassium and bicarbonate of potassa.—*Chicago Medical Examiner.*

The Sitting Posture in Prolonged Catheterism.—Mr. R. Hanslip Sers says, that he permits the patient to sit upon a chair in a semi-recumbent posture, with the nates close to the

edge and the knees widely divergent. This admits of any requisite manipulative process. In stricture, he has faith in prolonged sittings, at least in otherwise healthy country persons in the prime of life, to enable one *leisurely* to exert that steady pressure—gentle yet efficient—so familiar to the expert. The sitting posture answers admirably, and is superior to the upright, and also to the flat position.—*Medical Press.*

Syphilis and Foundling Hospitals in Russia.—Dr. Valcourt, of Cannes, contributes an interesting communication under the above title. The writer's opinion of the maternity charities of Russia is, that they are well kept, there being two kinds of hospitals, one for winter, the other for summer. He describes one hospital, the *Kalinkinsky*, as being devoted to syphilitic women, and with 600 beds, almost all occupied. Here the treatment is chiefly of mercury, especially in frictions, and the subcutaneous injections advanced by Liegvis have been given up. Dr. Valcourt was astonished not to see any tertiary cases, but learnt that the ranks of prostitution are renewed every five years, in Russia, since the peasant girls return to their villages after passing some years in the large towns, thus causing whole villages to be attacked by syphilis. Surveillance of prostitutes has only been very recently established in St. Petersburg. The Moscow Hospital for Foundlings is magnificent, and can take in 1,000 nurslings; each infant has a nurse for itself, who are country-women, receiving 18 fr. a month, who take the children to the country after they are vaccinated. The system is very expensive, and yet the mortality of children is frightful. In 1870, 14,295 infants were brought to the hospital; of this number 634 were refused, and 10,661 were admitted. Of these 10,661, there were 7,660 less than five days old. Now the mortality was, whether at the hospital, or in the villages, 66.5 per cent. for infants aged from one day up to twenty-eight days, and 14½ per cent. for those between twenty-eight days and a year. The mortality is then 80 per cent. before a year old. This sad result is obtained in spite of cleanliness and the care with which the infants are surrounded at the hospital and in the villages chosen for them. Dr. Valcourt is profoundly convinced that there is but one remedy; these young creatures require maternal care and lactation; the Maternal Society of Mulhouse has done much for this, and succeeded admirably. At Moscow, infants younger than five days are easily admissible into hospital, but if the umbilical cord has already fallen, a certificate of baptism and explanations are requisite. Once the infant is admitted the administration refuses to tell the mother where it is, and only tells her whether

it is alive or dead; if the mother desire to take it again, she must petition, and sometimes pay an indemnity. It is by no means astonishing, then, that the mortality of 80 per cent. is arrived at.—*Courrier Médical*, September, 1871.

Syphilitic Amblyopia and Amaurosis.—M. Galezowski has published an essay under the above title, the deductions of which are as follows:—

1. Syphilitic retinitis and neuritis may exist without any alteration of the choroid, and are mostly constituted by an apoplectic retinitis with exudation. 2. Syphilitic retinitis presents no pathognomonic symptoms by which it may distinguished from other kinds of retinitis. 3. But when retinitis or optic neuritis is accompanied by iritis or choroiditis, with or without flakes in the vitreous, the affection is without doubt syphilitic. He has always found that no other affection, save glaucoma, can give rise simultaneously to apoplexy of the retina and iritis or choroiditis. 4. The derangement of the chromatic faculty is ever present in these two forms of ocular alterations, and especially in optic neuritis. 5. These complaints are best treated by large doses of iodide of potassium and corrosive sublimate (one drachm and a half of iodide of potassium, and three-quarters of a grain to one grain of the sublimate per diem). 6. Syphilitic choroiditis is the most frequent form of syphilitic amblyopia and amaurosis. The signs of this choroiditis are very characteristic, and as it were, pathognomonic of syphilis. They are as follows:—*a*, disturbance or loss of vision, occurring in fits often at long intervals; *b*, a cloud in the shape of a cobweb constantly floating before the eyes; *c*, very frequent photoptics; *d*, photophobia; *e*, hemeralopia at advanced stage of the complaint; *f*, preservation for a long time of central vision, with diminution of peripheric; *g*, cloudy papilla; *h*, pigmentary retinitis at a more advanced period of the complaint; *i*, atrophy of the central vessels of the papilla, with preservation of the rosy tint depending on the trophic or cerebral vessels of the optic nerve. 7. Pigmentary retinitis occurs very often as a sequel to syphilitic choroiditis. 8. The syphilitic pigmentary stains occur along the vessels of the retina, but they form, besides, circular masses in the shape of herpes circinatus. 9. Pigmentary syphilitic retinitis, the result of contamination, differs from congenital pigmentary retinitis (especially that form hitherto attributed to the consanguinity of the parents), only by the circular form of the pigmentary stains. 10. Congenital pigmentary retinitis is a hereditary syphilitic affection. 11. The latter complaint should, at a tender age, be treated by mercury or iodine. After a certain age the progress of the

complaint cannot be stopped; it goes on increasing, and is followed at a more or less advanced period by loss of vision. 12. Children born of syphilitic parents should, at birth, be examined with the ophthalmoscope. If retinitis be found, the means just mentioned should be used.—*Archiv. Gén. de Méd.*, 1871.

Urethral Rheumatism.—Mr. Thomas Bond read a paper on the so-called urethral rheumatism. He does not regard it as the effect of any specific poison or constitutional diathesis; and it often occurred quite independently of gonorrhœa, as well as of very gouty or rheumatic predisposition. It was dependent on a local condition of the urethra; and he called it urethral rheumatism, as being the most convenient name. It occurred in men of an anæmic or weakly condition, or when gonorrhœa had been treated too long by copaiba or purgatives. There was a subacute inflammation of the synovial membranes and of the fibrous tissues about the ankles, heels, and balls of the great toes; it gradually affected the shoulders, elbows, and hands. Congestion of the sclerotic was present; and the health suffered severely. Exacerbation took place, with pains in the loins in the morning, followed by profuse perspiration, with loss of appetite and sleep. The urine was scanty, the tongue coated, the face hectic. The limbs often became permanently contracted, unless great skill and care were used in the treatment. The urethral discharge varied from profuse muco-purulent discharge to the slightest gleety fluid. The disease was not diathetic, but septæmic; in fact, a chronic pyæmia. He believed the altered state of the blood was kept up by the daily absorption of the morbid materials from the urethra. As soon as the supply of the *materies morbi* from absorption was stopped, the blood gradually eliminated the poison and returned to its healthy state. The peculiar immunity of women was owing to the greater thickness and coarseness of the vaginal epithelium than that of the male urethra, and to their not being treated by specifics and antiphlogistics. If the disease were a rheumatic urethritis, and not an urethral rheumatism, why should not women be equally liable with men? Antiphlogistics, copaiba, and iodide of potassium did no good, but rather harm. The proper treatment was full diet, with steel and quinine wine, and porter, and lastly injection, until the discharge was completely cured. A very good injection was tannin and opium with water.—*Transactions of the Medical Society of London*, November, 1871.

Removal of a large Rodent Cancer from the Face by Excision and Cauterization.—Mr. Hulke exhibited a blacksmith, from whom, in August, 1870, he had removed, in the Middlesex Hospital, by excision and cauterization, a very large rodent cancer of the left side of the face. It had eaten away the whole lower eyelid and part of the upper one; it had also invaded the orbit and destroyed the eyeball, and opened the frontal sinus and nasal passages. The patient returned in August last, with two small growths of the size of a threepenny-piece. These were destroyed with zinc-paste, and the whole surface now seemed perfectly healthy. There was now a large hollow, lined with healthy mucous membrane, showing the lower and middle turbinated bones, the openings into the frontal sinuses and nasal passages and the antrum. This chasm could be hidden by a mask. Mr. Hulke remarked that the danger of operating in these advanced stages was overestimated, and that with care the actual cautery and a chloride of zinc paste could be safely used, even to the roof of the orbit.—*Transactions of the Clinical Society of London*, October, 1871.

Successful Operation for the Removal of a Rodent Cancerous Ulceration Involving the Upper Eyelid and Orbit.—Mr. G. Lawson exhibited a patient from the Middlesex Hospital on whom he had operated successfully for a rodent cancerous ulceration, involving the upper eyelid and extending into the orbit, and on to the side of the nose. On account of the extent of the disease, the eye was first excised, and then the whole of the diseased structure was removed with a scalpel. The bleeding having been arrested by the actual cautery, the chloride of zinc paste, spread on a piece of lint, was freely applied to the cut surface; a layer of cotton-wool was then laid over the parts, and the whole was kept *in situ* by a turn of a bandage round the head. The patient suffered comparatively little from the operation. The pain which she had was relieved by a subcutaneous injection of morphia. Large sloughs soon came away, and portions of the bony walls of the orbit exfoliated, and ultimately the granulating surface of the wound cicatrized. There was now a large gap, showing the upper portion of the nasal cavity and some of the ethmoidal and frontal cells; but the parts were all healthy and cicatrized, and there was reason to hope there would be no recurrence of the cancerous ulceration.—*Transactions of the Clinical Society of London*, October, 1871.

Therapeutical Notes.

Syphilis treated by the Iodide of Ammonium.—Mr. Berkeley Hill reports the following case successfully treated by the iodide of ammonium. A lad, seventeen years of age, had had for years pains in his shins, and for months similar pains in his elbows and collar-bones, worst at night, when they often kept him awake; they were represented as an aching and a sense of weakness in his legs by day. His parents being dead, no history of the lad's infancy could be obtained; but the cornæ had opacities, irides were irregular, the bridge of the nose sunken, and there were scars along the neck, beneath the jaws, where he said he had had abscesses when a boy. The teeth were of normal shape. Though soft nodes were present on the clavicles and ulna, the most remarkable alteration existed in the tibiæ. These were bowed forward in a regular sweep from the knee to the ankle, the curve being partly due to actual bending of the bones, but chiefly to thickening of the periosteum along the shins. The epiphyses were not enlarged, nor the joints distorted. The lad had been treated for scrofula with iodide of iron, cod-liver oil, etc., without benefit, and iodide of potash, it was said, had been tried in vain. This being so, he was ordered to take iodide of ammonium in eight-grain doses three times daily. This was followed by improvement; the pain soon left, and in a fortnight the soft nodes had almost subsided. Since then the lad has grown strong and active, though the tibiæ are, of course, still distorted.—*Medical Times and Gazette*, December, 1871.

The Subcutaneous Injection of Bubo.—Dr. Wertheim, attached to the Syphilitic and Skin Department of the Rudolph Hospital, Vienna, states that he has given up all attempts at dispersing buboes by causing their absorption, and now treats them by subcutaneous injection. Solutions of morphia, camphor, sulphate of copper, etc., may be used as circumstances require, but muriate of ammonia (gr. iv., aqua ʒ ij) is that which is usually preferable. The ripe abscess is punctured by means of a thick needle, or the tube of a strong Pravaz syringe. After most of the pus has been gently pressed out, the injection of eight or ten drops of the solution is practised, the patient being taught himself to empty, every three or four hours,

the fluid that may have collected. The injection is at first repeated daily, and afterwards at longer intervals. Although not essential, it is better for the patient to keep in bed. The advantages of this method are that the pain of the abscess almost immediately ceases, and the other inflammatory symptoms steadily diminish; the thickened pus is gradually transformed into a thinner fluid; gradually decreases in quantity; no cicatrix remains; formation of pus is confined to the gland, and surrounding inflammation gradually diminishes.—*Boston Medical and Surgical Journal.*

Case of Intracranial Disease cured by Iodide of Potassium.—Dr. Moxon related the history of a man, twenty-one years of age, who was admitted into Guy's Hospital, having been ill six months. The illness came on with severe headache; in about three months ptosis and ocular paralysis of the left side commenced, and as it went on the left fifth nerve also became involved, and the right hand grew partially numb. When admitted he had agonizing pain in the head. The left eye was intensely red, and its corner ulcerated; it was almost immovable, and the lid was dropped. He could not feel moderate touches on the left face, nor taste salt on the left tongue, nor use left masticating muscles. He had two slight seizures of a doubtful kind on the first two days after admission. Iodide of potassium was given in three-grain doses thrice daily, and the dose increased to a scruple. He gradually got better of all his symptoms. The pain left him very soon; the other symptoms more gradually. He was in attendance at the Society's rooms, and the state of his left face and eye was practically normal again. The points to which attention was directed were chiefly these: That this is the third case of syphilitic disease about the sella Turcicca Dr. Moxon had met with. This he connected with the growth of the sphenoidal sinuses there, bringing in illustration the occurrence of exostosis very frequently about the frontal sinuses, and of exostosis on the long bones at the region of the epiphitial cartilage; all these facts going to prove that the seats of development are unusually liable to disease. Dr. Moxon believed that it was incumbent on every one who had a case of local intracranial disease come under his care, to treat it at once with iodide of potassium without waiting to make out its nature. He had not seen any serious ill effects from the iodide when taken to the extent of a drachm in the day for long periods. Slight salivation, a red rash, and catarrh were not common, though they occasionally occur; and they are by no means to be compared with local intracranical disease as alteratives. As to absorption of the testes, he had never seen it. The iodism of

old authors was probably referred to the poisoning of the blood by the absorption into it of broken-down matter of goitres during their cure.—*Transactions of the Clinical Society of London*, November 1871.

The Treatment of Syphilis by the Hypodermic Injection of Corrosive Sublimate.—Dr. R. W. Taylor arrives at the following conclusions regarding the value of the corrosive sublimate, by hypodermic injection, in the treatment of syphilis: —1. That the use of the bichloride of mercury by hypodermic injections, though a method of treatment possessing certain advantages, is, for various reasons, of limited application.

2. That it is useful in the whole secondary period of syphilis, in roseola, and in the various papular syphilides, and in that form of pustular syphilide in which there is only slight tendency to the formation of pus.

3. That it very rapidly cures all syphilitic neuroses, and that it is very beneficial in the cachexia of syphilis, whether accompanied or not by perceptible lesion.

4. That it possesses no advantages over other modes of administering mercury in the treatment of mucous patches and condylomata lata; and that these lesions yield more rapidly to a local than to any form of constitutional treatment; and that in the syphilitic lesions of the nervous system and of bone, particularly if late, its use is not to be commended.

5. That the very early tertiary syphilitic lesions, provided they are not of an ulcerative character, may be very much benefited by it, and that the simultaneous administration of iodide of potassium internally may produce a cure more rapidly than when the two are given internally.

6. That the peculiar advantages of the treatment are: the smallness of the amount of mercury used, the rapidity of action, and the absence of systemic disturbance.

7. That a very minute quantity of mercury, averaging from two to three grains, thus administered, may cause the disappearance of very extensive syphilitic lesions, and the alleviation of very severe symptoms.

8. That in the greatest number of cases, an injection every second day of an eighth of a grain of the bichloride of mercury will produce a cure in rather less than two months, and that in very urgent cases they may be pushed, with good effects, to the extent of one or two daily.

9. That the rapidity of cure is the rule rather than the exception, and that the time required may be stated as varying between three weeks and two months.

10. That when the injections are given every second day it is

very rare to observe any unpleasant systemic effects of the mercury; and that even when they are pushed more than this, these effects are never as severe as when mercury is pushed to a similar extent by the mouth.

11. That the relapses after this treatment are equally as frequent, as rapid, and as severe in character, as when mercury is given in other ways.

12. That there are unpleasant local effects of the injections, such as pain of the puncture, pain over the sight of injection, induration of the connective tissue, and abscesses.

13. That in many cases the pain is very slight, and soon ceases to trouble the patient; but that in others it is so severe and persistent as to necessitate a discontinuance of the treatment; and that in every case some slightly unpleasant local effects are experienced from the use of the injections.

14. That in exceptional cases, the injections cause a low grade of inflammation in the subcutaneous connective tissue, producing a decided induration in deep portions of the derma; and that, owing to complications which might, perhaps, arise from this condition later on, it is advisable to discontinue the injections in these cases.

15. That this induration may be observed in many cases in which it is only of an ephemeral character.

16. That if proper care is used in administering the injections, abscesses will rarely, if ever, occur.

17. That it is absolutely necessary that the patient should be both intelligent, and, at the same time, thoroughly impressed with the gravity of his disease, in order that he may comprehend the advantages he is to derive from this mode of treatment; otherwise, he could not subject himself to the inconveniences which are inevitably experienced in the course of the treatment.

18. That while in dispensary and hospital practice the injections may be frequently given, in private practice the smallness of a patient's means may often be an obstacle in the way of the continuance of the treatment.

Finally, that while in some cases the treatment may be useful by reason of its rapid action, and in others for the smallness of the dose, the inconveniences which it produces, the objections of the patients, and the presence of lesions which contraindicate its use, confine its sphere of usefulness to very narrow limits.—*Transactions of the New York Dermatological Society.*

Phosphorus in Skin Diseases.—Dr. Eames contributes the following observations on the use of phosphorus as a substitute for arsenic in the treatment of many cases of skin disease. Dr. Eames thus describes his method of using the remedy:

A solution of ten grains of phosphorus in one ounce of olive oil was prepared, and of this a dose of from five to ten minims was administered three times a day; or, capsules might be substituted in cases where the oily solution caused nausea or other unpleasant symptoms. Three sets of capsules, containing one-tenth, one-twentieth and one-thirtieth of a grain of phosphorus respectively, had been made. The first case treated by Dr. Eames with the remedy was one of severe *acne indurata* of the face of four years' standing. After six weeks a cure was effected. In three cases of lupus, similar satisfactory results were obtained. In the first of these, a marked improvement was observed after a fortnight's trial, and the patient continued to take ten-minim doses of the phosphoretted oil for nine months. In the second instance, a five months' course of treatment was followed by cicatrization, and eighteen months subsequently there had been no return of the disease. In the third case, the oil was used during nine weeks, but with interruptions, owing to the appearance of grave dyspeptic symptoms. In one case of scrofuloderma the glandular swellings disappeared in six weeks; in another a cure was effected in three weeks. Psoriasis also yielded readily. In one instance of this affection dyspepsia supervened on the administration of phosphorus, which was then temporarily stopped and the mineral acids given. A man aged 24, with pemphigus, beginning on the abdomen, was quite well in a month. Cases of eczema of the scalp had also been much relieved. Dr. Eames referred to the silvery appearance of the tongue noticed when patients had been taking phosphorus for some time, another point of analogy with arsenic, and to the frequent occurrence of dyspepsia. The latter was to be met by substitution of the mineral acids for a short time.—*British Medical Journal*, December, 1871.

The Successful Treatment of a Large Congenital Nævus of the Face.—Mr. Bellamy, Surgeon to the Charing-Cross Hospital, reports the following interesting case:—A. B., aged 6 months, was brought as an out-patient to the hospital in May last, with a large congenital nævus occupying the greater part of the left cheek, about one-half of the upper and lower eyelids of the same side. The nævoid tissue implicated the true skin very deeply. Chloroform having been administered, Mr. Bellamy transfixed the greater part of the implicated tissue with two harelip pins diagonally, and tied the mass with a stout ligature. From some want of attention the proceeding was unsuccessful, and on the next visit Mr. Bellamy passed a stout needle under both the facial artery and vein as they passed over the jaw, a second under the left coronary vessels,

and a third enclosing the angular vessels at the root of the nose, retaining them by twisted sutures.

The mother brought the child to the hospital in a week's time, with the contents of the constricted nævus converted into an abscess, pointing at the conjunctival surface of the lower eyelid. A scalpel was passed between the superior maxilla and the skin, and a great quantity of pus evacuated. The needles were withdrawn, and the cheek was dressed with wet lint. All went on well; and when the child was last seen, on October 11th, there was scarcely any evidence of the former disfigurement, excepting one or two small cirsoid points at the extreme outer margin of what had been implicated tissue. There was no contraction of the cheek or eyelids, from which appendages the nævoid tissue had almost disappeared, and there was every appearance of complete recovery.—*British Medical Journal*, December, 1871.

The Treatment of Lupus Erythematosus.—Mr. Nunn regards this form of the disease to be essentially an inflammatory atrophy of the cutis, limiting itself to that structure, and thus distinguished from lupus exedens, which was capable apparently of destroying indiscriminately every structure. Two cases of lupus erythematosus were reported, in which the family history afforded no clue to the nature of the disease; and, in contrast, one case of lupus exedens, in which a hereditary syphilitic taint was with almost complete certainty to be traced. The first two cases had been treated, for years before coming under Mr. Nunn's care, with mercury, iodine, arsenic, etc. The first patient, a male, aged 34, had (Oct., 1870) suffered during thirty-two, the second during twenty-one years, with lupus erythematosus of the cheek. The bromo-iodine waters of the Woodhull Spa, in doses of a wineglassful three times a day, were given, and a tablespoonful of lemon-juice in a tumblerful of milk every morning. In the first case, the gums being spongy, solution of the chloride of zinc (one grain to the ounce of water) was ordered to be applied to them. This case was to all appearances cured at the end of six months. The second patient was still continuing the treatment with advantage, having only commenced it in May last. The case of lupus exedens had been in the Middlesex Hospital, under the care of the late Mr. Moore, and was now an inmate of the Hospital for Incurables at Putney.—*Transactions of the Clinical Society of London*, October, 1871.

The Subcutaneous Injection of Morphia in Traumatic Erysipelas.—Prof. Estlander, of Helsingfors, states

that he employed this injection originally in his clinical practice, in combination with the so-called abortive treatment (chiefly by means of tincture of iodine), mainly with the view of relieving the heat, tension, and pain of the inflamed skin. It was soon found, however, that the morphia must have exerted other effects also, so quickly was the course of the disease mitigated. It was therefore used in a series of cases as the sole local remedy, and the conviction became established that it must have exerted a direct influence on the inflammatory process, diminishing its intensity and arresting its progress. When the limits between the inflamed and healthy portions of the skin are not very clearly defined, and the process manifests itself in the form of large red spots gradually approaching each other, if we inject near the affected parts we usually find next day that the erysipelas has not extended farther, or has done so only to an insignificant extent. In cases in which the limits of the reddened and swollen skin are well marked, if we make some injections in its vicinity, we may find that the inflammatory process, which during the preceding twenty-four hours had made considerable progress, is sometimes at once arrested, but more frequently it continues in a diminished degree, gradually yielding in the course of a few days to a continuation of the treatment.

In the worst cases of erysipelas ambulans, as in the severe epidemic form, or where a peculiar disposition of the individual prevails, the morphia exerts as little effect as any other of the so-termed abortive remedies. In estimating how far the results depend upon the peculiar nature of the erysipelas itself, and how much they are ascribed to the injections, Professor Estlander has undertaken many comparative trials, and he could relate many cases in which, while a rapid improvement followed the use of morphia, other cases treated at the same time, either expectantly or by means of other remedies, were much slower in their progress. Still, he is too well aware of the capricious character of erysipelas to venture to deliver any categorical judgment upon the subject. But a five years' experience has convinced him that these injections constitute a better mode of treating erysipelas than many other means.

For the injections, two grains of the chlorate or acetate of morphia are dissolved in a drachm of water, and as Luer's syringe holds about a quarter of a drachm, of which a quarter or a half is injected, it follows that the dose varies from one-eighth to one-quarter of a grain. As, so far from the erysipelas ever appearing at the small puncture-wounds, these and their immediate vicinity are always represented by it, the dose may

be distributed over different parts of the healthy skin, at a distance of one or two inches from the limits of the inflammation. Usually the injection is made only once in the twenty-four hours. Professor Estlander has no intention of proposing this as an exclusive method of treating erysipelas, believing, on the contrary, that one of its advantages is that it admits of the simultaneous use of other means. He has tried, indeed, all the various other remedies which have been recommended, and regards the tincture of iodine as the best of these. As soon as from shivering and the appearance of the wound erysipelas seems threatening, he administers an emetic, a means which he believes is nowadays too much neglected, and one which he believes conduces to moderation of the disease. The morphia is next injected, either as the sole means, or in conjunction with a daily painting with iodine, employing afterwards wadding and compression by a roller where practicable. Ipecacuanha with phosphoric or sulphuric acid may afterwards be administered. The sesquichloride of iron, once regarded as a specific, is of no real utility.—*Deutsche Klinik*, No. 39.

The Treatment of Orchitis.—Mr. Jonathan Hutchinson regards gonorrhœa as the most common cause of that form of orchitis in which the epididymis, body of the testis, the tunica vaginalis, and the cellular tissue of the scrotum are involved. In these cases the effusion is usually only serum, and a speedy and complete cure by absorption may be expected; but, in exceptional instances, suppuration may occur in the cavity of the tunica vaginalis, and in others still more exceptional, in the body of the testis itself. Gonorrhœal orchitis almost always subsides spontaneously, and without any permanent damage to the gland; all that is necessary is to keep your patient in bed, to purge him freely, and apply ice to the part; now and then, however, the severity of the inflammation may be such as to threaten abscess, or even to cause gangrene. When the pain is intense, and when it persists in spite of the use of ice, Mr. Hutchinson believes that the practice of incisions is not only safe, but very valuable. Some surgeons are in the habit, even in ordinary cases of gonorrhœal orchitis, of seeking to relieve tension by making one or more punctures into the tunica viginalis, or even into the testis itself. He believes that we may accept the results of their experience as proof that such punctures seldom do any harm; to most of us, however, they scarcely appear to be necessary. In recommending incisions, he is speaking rather of the exceptional cases in which abscess is threatened; and in looking back on his own experience, he is certainly inclined to regret, respecting several cases which he

remembers, that he did not make incisions earlier. A free incision into the tunica vaginalis leads to no ill consequence whatever, excepting the inconvenience of suppuration of the sac; and if happens that pus is let out, the relief is immense. A free incision through the tunica albuginea into the testis itself does not lead to gangrene of the testis, nor always even to fungous protrusion. When the testis is swollen, it appears to relieve pain, much with the same certainty that iridectomy does in acute glaucoma, and Mr. Hutchinson's impression is that it is likely in critical cases to diminish the danger of gangrene on the one hand, and of consecutive atrophy on the other.—*Medical Times and Gazette*, April, 1871.

Powdered Camphor in Phagedenic Chancre.—Dr. Netler has shown, in the *Gazette des Hôpitaux*, that hospital gangrene yields to the application of powdered camphor. Thereupon M. Baudoin, as stated in *L'abeille Méd.*, was induced to try the same remedy in phagedenic chancre. Three cases are quoted to prove the efficacy of the application, but the author does not allude to the means employed previously.—*Lancet*, October, 1871.

The Treatment of Chancrous Buboes.—Dr. Ed. De Smet refers to the views of Dr. Kraus, with respect to the treatment of chancrous buboes, which affections are treated by Dr. Kraus, of Vienna, by repose in bed, avoidal of cautery of the chancre, iodine paint, and cold at first; afterwards followed by small punctures at the periphery of the tumor, and pressure by means of a leaden plate. Dr. Kraus thinks this treatment much superior to the plan of large incisions, which leave such ugly scars and a tendency to hernia. These views of Kraus are not adopted by Dr. De Smet, who, indeed, thinks that such treatment would often fail to cure, or rather aggravate such buboes. In chancrous buboes, he says, punctures are not sufficient, incision is quite obligatory. All buboes which accompany chancres are not chancrous buboes; but when they are, it is the practice of Dr. Thiry to make a puncture of the bubo, if recent, or a large incision if it is considerable. When the pus is evacuated, and the purulent focus cleansed, a deep cauterization is employed, either with a strong solution of nitrate of silver or with acid nitrate of mercury. After this there are frictions made over the bubo with mercurial ointment, or the cavity is filled with lint dipped in aromatic wine, and compression kept up by means of a spica bandage.—*Press. Méd. Belge*, September, 1871.

Treatment of Syphilis by Calomel Injections.—Dr. F. Zambon relates how a patient, with two gummy tumors, one in the groin, the other on the thigh, was treated by himself with injections in the middle external aspect of the left arm by means of twenty-five centigrammes of calomel performed three times in forty-three days. The two tumors gradually disappeared under this treatment.—*Gaz. Med. Ital. Prov. Venete.*

Favus Treated by Sulphur and Charcoal Ointment.—Dr. Sirus Pironde, in an account of the Clinique of Marseilles, says, that if favus has not yet attacked the whole of the hairy scalp, and if the little crusts are somewhat isolated from one another, we may sometimes destroy the parasite without epilation. To this end, after softening the crusts with an emollient lotion, we may impregnate them, by the aid of a little brush, with oil of cade, with a solution of corrosive sublimate, or with turbith ointment; but there is an ointment perhaps quite as active as these, and which has the advantage of containing no mercury, and not having a bad odor. This mixture is composed of equal parts of sulphur and powdered charcoal incorporated with as much lard as is necessary. This ointment ought to be applied before epilation, and we are sometimes surprised at the rapid and excellent effects it brings about. One would say that the charcoal particulary attacked the odor which the crusts exhale, whilst the sulphur destroys the achorion.—*Marseilles Méd.*

Amputation of the Penis by Galvano-Cautery.—M. Zielewicz mentions 50 cases where the penis was operated on by a wire heated by galvanism. For the most part it was for carcinoma the operation was made use of. In one case there was a considerable papillary tumor, and in another gangrene. Eight of the 50 cases died of pyæmia; all of them were hospital cases. No hemorrhage took place in any of the cases, nor was there ever any traumatic fever. The contraction after the operation of the urethral orifice was similar to what takes place after the knife. The ages of those operated on was known in 45 cases; it was in 1 under 20; in 6 between 30 and 40; in 15 between 40 and 50; in 15 between 50 and 60; and in 7 between 60 and 70. Three cases occurred in old men between 70 and 80.—*Langenbeck's Archiv.*

Oak-bark Wash in Sumac Poisoning.—Dr. J. B. A. Risk, writes:—

"In my experience in the treatment of the erysipelatoid affection of the skin and subjacent tissue, induced by any one of the family of the rhus, whether the toxicodendron, vermix, etc.,

nothing has been so satisfactory in its curative effects as the decocti querci albæ; if the parts diseased are bathed in the warm decoction sufficiently, the soothing effects, the speedy subsidence of the pain, and tumefaction and redness, soon follow, announcing to the sufferer the sanative influence of this agent. The subsidence of the inflammation and the corrugation of the skin do not always take place at the first bathing, but, if followed up a few times, will be sure to occur."—*Cincinnati Med. Repository.*

Use of Carbolic Acid to prevent Pitting after Small-pox.—Dr. Scott, of Dumfries, having experienced the beneficial effects of carbolic acid in preventing disfiguration of the face in severe cases of burning with gunpowder, and with sulphuric acid, he suggested its employment, with this object, in a number of cases of small-pox. It was applied in the following manner: From the first appearance of the eruption, until the completion of desquamation, the face was kept constantly moist with the solution of the acid, in olive-oil (one to eight). The results have been most satisfactory. Of all the cases treated in the Dumfries Infirmary (several of which were of the confluent type); not one has, on recovery, presented the slightest trace of disfiguration. The application, moreover, was most grateful to the patients' feelings, allaying the itching and irritation, and preventing the desire to scratch off the scabs which is so annoying to the sufferers in the later stage of the disease. In the case of gunpowder burning, the acid, in addition to its antiseptic and anæsthetic properties, appears to have the effect of dissolving the carbon and of withdrawing it from the skin. In a case treated about twelve months ago by Dr. Scott, by the above-described method, the patient, a young gentleman, was so disfigured as to present the appearanee of a negro; his face being blackened, his lips swollen and everted, eyelids closed, hair and beard much singed, intense intolerance of light, and profuse lachrymation, with great suffering. The application of the carbolic acid and oil was followed by instant relief, and the oil becoming more fluid from the heat of the skin, ran over the skin with appearance of thick ink. The result of this treatment was that on recovery, which was rapid, there was not the slightest discoloration of the skin, and the face, in a very short time, presented its natural appearance.—*Edinburgh Medical Journal*, August, 1871.

Santonin as a Parasiticide.—Dr. David Page makes the following remarks on the use of santonin based on cases under his care. In one of these, a healthy-looking girl, aged 12, was brought to him suffering from loss of appetite, toothache, white and furred tongue, and symptoms generally indicating an irritable

state of the primæ viæ. Her mother stated that for some weeks the navel had been the seat of great pain and uneasiness, and there was now much redness and tenderness to touch. The failure of domestic medicine had alarmed her, and induced her to seek a remedy elsewhere. From the symptoms Dr. Page suspected that the ascaris lumbricoides was lurking within the small intestines, and so gave her five-grain doses of santonin, to be taken at bed-time, followed next morning by eight grains of the compound scammony powder, to be taken early before breakfast. This treatment was to be repeated for three successive nights; but on the morning after the second dose he was informed that two round worms had come away by stool. One of these was found to measure fourteen inches in length. A week later the medicine was repeated without result, and the girl had already recovered her former good spirits and appetite. In spite of the large quantity of santonin administered, there was no disturbance to the eyesight or other function. In a second case, occurring in a boy five years of age, the effect of the administration of santonin was to dislodge a whole colony of the oxyuris, or threadworm, with masses of jelly-like mucus. After the first dose much alarm was excited when it was discovered that the little patient had involuntarily passed, during sleep, a large quantity of urine which stained the bed-linen bright-yellow.—*British Medical Journal*, September, 1871.

Treatment of Eczema of the Hands.—Prof. Hebra treats those cases which are due solely to local irritation—*e. g.*, in bakers, to flour, by covering the hands with gloves made of Mackintosh cloth, and tied around the wrist with a handkerchief or bandage. The patient only takes them off (by pulling them *at the wrist*, so as to turn them inside out) at meal times, when he is directed to wash his hands and the insides of the gloves with cold water. By this plan the skin is effectually protected from injurious influences, while at the same time it is kept in a sort of bath by the perspiration retained by the impervious glove.—*Lancet*, 1871.

Treatment of Acne Faciei.—Prof. Hebra is now using emplastrum hydrargyri in cases where the patients have business to attend to in the daytime. The plaster is applied to the affected skin at bedtime, and allowed to remain on all night. The next morning, on rising, it is removed, and the face is powdered with a mixture of equal parts of subnitrate of bismuth and Venetian talc. In the evening the plaster is reapplied.—*Lancet*, 1871.

About Books.

ALOPECIA. By EDWARD WIGGLESWORTH, JR., M.D. Boston, 1871.

THE subject of baldness is one which always presents many points of interest to the dermatologist as well as to the general practitioner, and when treated of by such an accomplished dermatologist as Dr. Wigglesworth of Boston undoubtedly is, we think that his views are entitled to careful attention. In this monograph of twenty-eight pages the author treats the whole subject fully and clearly; besides advancing his own views he gives those of other observers, and from his references we find that he has consulted all the recent literature. He divides baldness or alopecia, after Kohn, into two general varieties—alopecia senilis and alopecia præmatura; of the last variety, still following Kohn, he subdivides it into alopecia præmatura idiopathica and alopecia præmatura symptomatica. By idiopathic premature baldness is undoubtedly meant alopecia areata, and this very interesting affection is very critically and carefully considered by Dr. Wigglesworth. He reviews the opinions held as to its parasitic and non-parasitic origin, and from personal observation takes sides with the partisans of the non-parasitic theory. His remarks upon the views of those who entertain the parasitic theory are sensible and judicious, and his ideas as to the manner in which observers have been led to believe that they really saw a parasite, are put in a very convincing way. The baldness due to seborrhœa, or, as called by Kohn, alopecia furfuracea, is fully considered. Dr. W.'s remarks upon treatment include all that is known of the subject. We regret that we have not space for a fuller analysis of this very interesting paper.

DE L'HERPÉS GÉNÉRALISÉ FÉBRILE. By DR. HENRY COUTAGNE. A. Parent. Paris, 1871.

IN this short monograph Dr. Henry Coutagne, a rising dermatologist of Lyons, France, calls our attention to a form of herpes which in its course simulates an exanthematic fever. Dr. Coutagne divides his work into five chapters. In the first he briefly and clearly reviews the various opinions entertained by celebrated authorities upon herpes, and gives a very clear history of the subject. The second chapter treats of the symptoms and mode of evolution of the eruption, and is enriched by a very clear résumé of five cases, some of which came under Dr. Coutagne's personal observation, and the rest under that of his friends. The mode of invasion of this generalized febrile herpes is always by a very high fever, headache, lassitude, want of appetite, and malaise; very so on an eruption, which is more or less copiously distributed, appears upon the face about the mouth, upon the extremities

and trunk, and particularly upon the penis and the scrotum. The eruption commences as a small, red, oval spot, which itches slightly, and which enlarges, and upon it vesicles of the size of the head of a pin rapidly develop. The contents of the vesicles are at first serous, but very soon become sero-purulent. The red spot becomes of a violet color, and the vesicles burst and are replaced by brownish scabs under which is a superficially ulcerated surface. The throat as well as the general integument is attacked, and the tonsils become enlarged and inflamed, and covered with these vesicles, which upon rupture become covered with an albuminous substance resembling a false membrane. Deglutition is rendered quite difficult. As to the etiology of this affection, Dr. Coutagne does not offer any explanation; indeed, we think it would hardly be warrantable, considering the rarity of his cases. It seems that all of the five cases reported were those of men, and that the eruption with its attendant fever came on quite suddenly when the patients seemed to be enjoying good health. In one there was a distinct relapse within a year. The diagnosis requires to be made between the vesicular siphilide, hydroa vesiculeux, acute pemphigus, and acute general eczema, and the various erythemata and miliaria; but a careful inquiry into the mode of evolution of the affection and the recognition of its lesion clearly indicates its true character. The prognosis is always good, as the disease is self-limited to about ten days or two weeks, and is not attended by any sequelæ. The treatment is antiphlogistic, with mild external applications, as well as saline gargles to the throat. In his concluding chapter Dr. Coutagne states that a careful observation of those cases he was fortunate enough to see would warrant the conclusions: 1st, that there is an acute general herpes; 2d, that it resembles in its course an exanthem, except that it is not contagious; and 3d, that it runs a wild course, shows a natural tendency to get well, and requires very little treatment. The monograph is very pleasantly written, and shows that its author is a very careful clinical observer.

A HAND-BOOK OF THERAPEUTICS. By SYDNEY RINGER, M.D. Second Edition. New York: William Wood & Co. 1871.

THE fact that within a few years a second edition of this hand-book has been called for sufficiently attests its worth. The author tells us in his preface that his work is especially intended for students and young practitioners, and we think, after a careful perusal of it, that it will be especially valuable to them. In describing each drug, the author enters fully into its therapeutic indications, and in that way gives a better idea of its real value. The general arrangement is that of Buchheim, and is noticeable for its simplicity. The book contains a very convenient table of doses, some practical directions as to the diet of invalids, and finally a separate index for remedies and diseases. The work is an exceedingly useful one, and supplies a want hitherto much felt.

NEURALGIA AND THE DISEASES THAT RESEMBLE IT. By F. E. ANSTIE, M.D. New York: D. Appleton & Co. 1872.

UP to the present time, the subject of neuralgia has not received from physicians anything like the attention due alike to its importance and to the suffering which the malady entails. In this regard the work of Dr. Anstie is one of great importance. The subject presents so large a field for pathological and clinical observation, that the work will doubtless stimulate others to pursue in greater detail the investigations here sketched out in a general way. Dr. Anstie regards the disease as invariably associated with atrophic changes in the sensory root of the nerve. He also views the disease as hereditary in a large proportion of cases. With all deference to the distinguished author, we scarcely think that clinical observation will sustain this view. Cold, undoubtedly, is one of the most fruitful physical causes in the production of neuralgias, though the *modus operandi* is still an obscure problem. The chapter devoted to the complications of neuralgia is an exceedingly interesting one. Neuralgia is invariably confined to specific nerve-tracks, and is mainly unilateral. It seems to us that Dr. Anstie attaches too much importance to the fact that neuralgia is aggravated by depressing agencies. In the diagnosis or treatment of a case, this fact certainly deserves to be considered. Interesting as Dr. Anstie's essay is, we are bound to state that he has thrown but little new light on the treatment of neuralgia.

A TREATISE ON LOCALIZED ELECTRIZATION. By Dr. G. B. DUCHENNE. Translated by HERBERT TIBBETS, M.D. Lond.: Rob. Hardincke. 1871.

As long as electricity is used in medicine—which will probably be as long as there are diseases among men—the name of Duchenne will be remembered with gratitude and esteem. Long and earnestly he has spoken on the subject of Electro-Therapeutics, and oftentimes to unwilling ears and to a perverse generation. What founders of States are to government, what true reformers are to morality, such are pioneers like Duchenne to science.

We are pleased to have this work on Localized Electrization in English; it should have been translated long ere this. And yet the work as a whole is poorly enough adapted for an English or American audience. This first volume is burdened with scores of pages devoted to descriptions that are of no more value to the practical electro-therapeutist of our time and country than a catalogue of all the objects on exhibition at the recent Fair of the American Institute. The work is also encumbered with long and useless argumentation on points that are not worth the labor he gives them. Besides all this, Duchenne knows but little of electricity as a general tonic, and next to nothing of electro-surgery. Electricity to him is merely a local stimulant for paralyzed muscles.

The chief value of this work will be for specialists in some of the many branches of electro-therapeutists who desire to master the history of the

struggles by which electricity has forced its way into medicine. The topics in this work that particularly demand attention are the differential action of the current of the primary and secondary coil—the comparative effects of the galvanic and faradic currents, and the experiments on the sympathetic.

A MANUAL OF PRACTICAL THERAPEUTICS: CONSIDERED CHIEFLY WITH REFERENCE TO ARTICLES OF THE MATERIA MEDICA. By EDWARD J. WARING, M.D. Philadelphia: Lindsay & Blakiston. 1871.

THE Manual of Dr. Waring has for several years held an esteemed place in medical bibliography. The character of the work is perfectly well known. It does not pretend to teach the science of therapeutics, either generally or specially, in reference to any given disease; it is simply a work of reference for the practitioner. The present republication is the second American from the third English edition. In point of fact, however, this edition is more than a mere republication of its predecessors; it is rather a remodelling and recomposition of the original treatise. Such a course was necessitated by the fact that, owing to the very rapid strides made by therapeutics during the past few years, to have engrafted *en masse* the diversified and important facts thus brought to light would have resulted in a mere heterogeneous medley of old and new. Accordingly, the pains-taking and conscientious author justly judged it expedient to rewrite the work. Thus the articles on antimony, calomel, and blood-letting now occupy much less space than formerly; while chloral, apomorphia, bromide of mercury, and other new remedies have been introduced, and larger notice taken of bromide of potassium, Calabar bean, carbolic and sulphurous acids, etc. The American reprint is brought out in handsome style, and is enriched with a very full and admirable index.

A TREATISE ON DISEASES OF THE NERVOUS SYSTEM. By WILLIAM A. HAMMOND, M.D. New York: D. Appleton & Co. 1871.

IT is well known, not only to the profession, but to the general public, that for a number of years past Dr. Hammond has devoted himself to the *spécialité* of diseases of the nervous system. It is not too much to say that in this department his range of experience has been far more vast and more varied than that of any other practitioner in the United States. Accordingly, the announcement that Dr. Hammond was about to issue a volume on the physiology and pathology of the nervous system excited an uncommon degree of interest. The fulfilment of this design, which comes to us in a portly octavo of 750 pages, will not disappoint the high expectations excited by the combined ability and opportunities of the author. The work before us is unquestionably the most exhaustive treatise, on the diseases to which it is devoted, that has yet appeared in English. And its distinctive value arises from the fact that the work is no mere *rafficiamento* of old ob-

servations, but rests on his own experience and practice, which, as we have before observed, have been very extensive.

From the author's preface we extract the following epitome of its scope and contents: "The treatise embraces an introductory chapter, which relates to the instruments and apparatus employed in the diagnosis and treatment of diseases of the nervous system, and five sections. Of these, the first treats of diseases of the brain; the second, diseases of the spinal cord; the third, cerebro-spinal diseases; the fourth, diseases of nerve-cells; and the fifth, diseases of the peripheral nerves."

It may perhaps not be out of place in this journal to remark that the portion of Dr. Hammond's work touching on the diseases of the nervous system arising from syphilis is but slight and incomplete.

A TREATISE ON HUMAN PHYSIOLOGY. By JOHN C. DALTON, M.D. Fifth Edition. Philadelphia: Henry C. Lea. 1871.

THIS is the fifth edition of a manual of physiology which we regard as quite the best exposition of the science ever made in this country. It is the work of a teacher unrivalled in the clearness and *netteté* of his prelections and demonstrations. We need only say of this valued treatise that it has undergone careful revision to bring it abreast the most recent advances of physiological research. The publisher has spared no expense to make the illustrations and mechanical execution in keeping with this standard work.

EMERGENCIES, AND HOW TO TREAT THEM. By J. W. HOWE, M.D. New York: D. Appleton & Co. 1871.

WE can scarcely fancy the "emergency" which induced the publishers to bring out this book. The production is of that nondescript character which is neither scientific, nor so-called popular. There is assuredly nothing in the work which is not perfectly known to any one deserving the name of physician.

HANDY-BOOK OF THE TREATMENT OF WOMEN'S AND CHILDREN'S DISEASES, ACCORDING TO THE VIENNA MEDICAL SCHOOL. By DR. EMIL DILLENBERGER. Philadelphia: Lindsay & Blakiston. 1871.

WE do not see any call for the publication of this book. It can only interest that limited class who from professional curiosity desire to institute a comparison between the modes of treatment pursued in Germany in dealing with the diseases of women and children, and those followed in this country. To these select few the original would undoubtedly be more serviceable, for the translation, by Dr. Patrick Nicol, is exceedingly bad. The Galenical preparations here ordered must certainly be "caviare to the multitude," and the prescriptions might as well have been written in Sanscrit. The book proves that there is such a thing as over-translation.

Obituary.

LANGSTON PARKER, F.R.C.S.

It is our painful duty to record the death of this accomplished surgeon and syphilographer. He died from bronchitis, on Friday, the 27th of October, 1871, in the sixty-seventh year of his age. Mr. Parker was born in Birmingham, in 1803, and there commenced his professional education; he thence proceeded to London and entered St. Bartholomew's, concluding his curriculum of study by a visit to the hospitals of Paris. In 1828 he became a member of the Royal College of Surgeons, and two years later succeeded to his father's practice in his native city. Possessed of an active, vigorous mind, he soon engaged in various schemes to promote scientific and professional education in Birmingham. He was one of the founders of Queen's College, in which, for a quarter of a century, he occupied the Chair of Anatomy. Of the Birmingham Philosophical Institution he was likewise an active promoter, and delivered before its members a remarkable course of lectures *On the Effects of Certain Mental and Bodily States upon the Imagination.* The contributions of Mr. Parker to medical literature were numerous and important. Of these, one of the earliest was a volume of 300 pages, *The Stomach in its Morbid States: being a Critical Inquiry into the Nature and Treatment of Diseases of that Organ*, 8vo, 1837. He subsequently condensed this work and published it under the title, *Digestion and its Disorders, in reference to Dietetics and Diseases of the Stomach*, 8vo, 1849. His paper on *The Nature and Treatment of some Painful Affections of Bone*, published in 1852; his *Course of Lectures on Clinical Surgery* (1855), and his elegant monograph on *The Modern Treatment of Cancerous Diseases by Caustics or Enucleation;* and *An Inquiry into the Effects of many new Remedies in Arresting the Progress of Cancer*, will long command attention.

As a syphilographer he obtained more than a European reputation. In the successful treatment of special diseases he will long be remembered by posterity. His *Clinical Lectures on Infantile Syphilis*, published in 1858; his monographs on *Primary and Secondary Syphilis of the Uterus*, 1859; his papers on *Latent Syphilis*, published in 1863; and *On some Diseases and Accidents to the Sexual Organs not of a Syphilitic Nature*, in 1868; his essay on *The Mercurial Vapour Bath*, in 1868, in which work he advocated "moist" in preference to "dry" fumigation—all indicate his varied and practical knowledge; his excellent work, *The Modern Treatment of Syphilitic Diseases*, embodying the results of thirty years' experience, reached a fifth edition a short time before his death. In this country it has long been

a favorite work, and will continue to be read by those who are qualified to appreciate the eminently practical character of his teachings. Few men were better read in the literature of medicine and surgery than Mr. Parker. In private life he commanded respect for his honorable character, and won esteem by his kindly disposition and genial manners. His loss will long be felt both at home and abroad. He leaves one son, Mr. Adams Parker, a Licentiate in Dental Surgery of the Royal College of Surgeons, and who is now attached to the hospital which his father served so faithfully and so long.

Editorial.

With the present number we commence the third year of this Journal. It may not be immodest, and it is certainly agreeable for the editor, to state that this publication is a definitive success. This fact is of itself the best proof of the marked and growing interest that is attached, in this country, to the specialty to which our pages are devoted. The curriculum of our Medical Colleges is far from adequately meeting the intrinsic importance of the subjects of Syphilography and Dermatology, and our hospital facilities are so meagre for any special studies or observations, that this Journal supplies a very decided desideratum in this branch of scientific medicine. Our volumes will show that we have laid under contribution the ablest pens in our departments, both in this country and abroad, and we have a pardonable pride in feeling that this is recognized both in Europe and America. This fact may also afford the best assurance that we shall in the future endeavor, not only to sustain, but to advance the standard of excellence which forms our sole claim to encouragement and support.

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OF

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APRIL, 1872.

Original Communications.

ON THE TREATMENT OF VENEREAL DISEASES, AS PURSUED IN THE VIENNA HOSPITAL, UNDER THE DIRECTION OF PROF. VON SIGMUND, INCLUDING ALL THE FORMULÆ.

ADAPTED AND ARRANGED FROM THE GERMAN.

BY M. H. HENRY, M.D.,

Surgeon to the New York Dispensary—Department of Venereal and Skin Diseases.

To many of my readers it may seem strange that I should devote so much space to the very minute directions, and the long list of formulæ in use at the Vienna Hospital, in the treatment of venereal diseases. I have done so because experience has proved that the assumption that every practitioner of medicine is perfectly familiar with the therapeutics and essentials of treatment in venereal and the kindred diseases is, to say the least, a rash one. The importance of a good knowledge of the pathology and treatment of this class of affections is only appreciated, to any great extent, by those who meet with obscure forms of disease. The general directions given in the English works regarding the application of therapeutics are meagre, and to fill this void in our literature I have prepared the following pages.

The position occupied by the great German syphilographer as chief of the clinic for syphilitics as well as the wards devoted to the treatment of venereal diseases has afforded him the most

extraordinary opportunities for deciding on the best course of treatment to be pursued not only in large institutions, but in the every-day walks of private life. The details which form so large an element in the successful treatment of any disease, are thoroughly explained. The large number of prescriptions marked "similar," as well as the statement of their comparative cost, will doubtless prove serviceable at times, and at least extend the resources of treatment at the command of the practitioner. The matter of cost will doubtless be of service to those in charge of hospitals and dispensaries.

An essential feature in the treatment of venereal diseases,—the enforcement of hygienic measures especially adapted to each individual case, is very properly advocated, and the fullest directions given to ensure the best results. These alone suffice, in many cases, to secure at least a very great improvement, if not a cure; whereas, in most cases the very best remedies have but a very imperfect effect, if any at all, when not aided by appropriate hygienic measures. Of the latter the most important is cleanliness; and its neglect, even in this day, is chiefly the cause of the spreading, protraction, and aggravation of these diseases. It becomes, therefore, one of the most essential duties of the practitioner in these diseases, not only to give such orders as are suitable to the case in question, but by constant supervision to see that they are literally complied with.

I. Nationality, custom, and mode of life cause peculiarities as regards care of the person, clothing, and dwelling; the adaptation of his directions to these conditions is left as much as possible to the practical good sense of the physician. Still, he should in all cases insist upon the strictest cleanliness of the body in all its parts. This is of especial importance in the case of the genital organs and their neighborhood, the scalp, mouth, nose, pharynx, hands and feet, and, in women, the breasts—parts which, from their being more frequently the seat of disease and the *locale* of treatment, are especially to be borne in mind. The removal of vermin demands particular attention, especially lice hid in the parts of the body covered by hair, and the itch insect. Not less attention should be paid to the patient's clothing, his body as well as bed-linen; also his apartment, and particularly the

atmosphere by day and night, together with his moral surroundings and his actions.*

II. In institutions for the sick, one of the most important duties of the physician is the thorough carrying out of all rules for cleanliness; and, in the treatment of venereal diseases, equal attention should be paid to the maintenance of proper ventilation, light, and temperature. The air of inhabited rooms contains many and dangerous germs of disease, which will, unless sufficient ventilation be provided, and the greatest care taken when exposing wounds, exert the most baneful influences upon the patients who remain constantly in it. Tobacco smoking, unfortunately so universal nowadays, should be permitted only in large and well-ventilated apartments which are occupied only by single patients; it is not admissible in sick-wards. Tobacco smokers should, moreover, be particular to keep their mouths, throat, and also their fingers very clean, for various reasons. Snuffing, and what is worse yet, chewing, should be strictly forbidden the patient.

III. Well-lighted and moderately-warmed rooms should be provided for the washing of the patients. In most cases tepid or warm baths, vapor baths, douches, friction, etc., with simple water, or with soap, or with water in which is mixed some soda or potash, are sufficient. Where, however, foreign substances are met with upon the skin, and are more or less firmly adherent, there may be used, as the nature of the case demands, potash soap, soft soap, fats (cod-liver oil, olive oil, lard, glycerine, etc.), alcohol, ether, or tar. Besides the bare hand, a glove, or a piece of woollen rag, may be made use of. These are better means than the customary sponge, which is a very doubtful, not to say really dangerous cleansing article. Especially when diseases are of a contagious nature, the sponge should never be tolerated in a hospital.

* Among other things, strict attention should be given to the closet and excrement vessels, which may be the seat of highly injurious emanations, and of matter which, upon contact, is highly inoculable—an extremely disagreeable task for the physician who has so much else to attend to; yet, in the final result of all his labors, he often has to pay for the neglect of that which is more often neglected than anything else—the water-closet.

IV. Specific instructions should be given concerning the use of baths, as regards place, time, temperature, and duration. When medicaments are to be added to the baths, the quantity and mode of solution should be accurately stated. It is the custom of female patients to neglect all measures of cleanliness during the period of menstruation. This has, alas! been the cause of much contamination, especially in the lower classes of the populace. Particularly during this period should cleansing, with at least simple warm water, be insisted upon. This is also applicable to the period of pregnancy, and more particularly to the parturient state, when, besides mere washings, injections with medicated solutions (§ V.) should be assiduously and carefully used. The presence of the hymen necessarily forbids the careful use of injections. When the vaginal mucous membrane is the seat of disease the customary hip-baths (sitz-baths) are insufficient.

V. The particular cleansing of diseased portions of the body must be regulated by the individual case. For this purpose use is generally made either of plain water of various degrees of temperature, or of solutions in water of various simple and easily obtainable substances, such, for example, as the chlorate of potash (1–2–4 drachms), carbonate of potash or soda (1–2 drachms), and chloride of lime (2–4 drachms), to the pint of water, which latter, if hard, thereby becomes soft, and at the same time acquires disinfecting properties. With the latter object in view phenyl acid (carbolic acid) may be added to simple water (1–3 drachms to the pint), which is then a solution generally applicable to all inflamed wounds and ulcers, especially when attended with offensive purulent or muco-purulent discharges.

VI. For the application of these solutions syringes and irrigators are the best adapted. With these, without the aid of any sponge, and with a little dexterity, the very best results may be obtained in every portion of the body. Particularly may this be asserted of irrigators, which in almost every case may not only supplant the syringe, but may be used with more certainty and delicacy, and are, moreover, easier to keep clean

and require less frequent repairs.* In public institutions they may be of various shapes and sizes, likewise of various materials (wood, metal, glass), and furnished with rubber pipes. The ward attendants should be thoroughly instructed in their proper use. Of course, syringes are absolutely necessary for certain portions of the body; but, by the application of appropriate mouthpieces, only a few of these are necessary.

VII. The simplest dressing, common water, is seldom applicable to venereal wounds or ulcers. If one is careful, in the washing of the latter, to have perfectly pure water, he should be still more careful as to the perfect purity of that which is used as a dressing. Now, perfectly pure water is not only difficult to obtain, but also to maintain pure. Water impregnated with salts or lime will be much improved by boiling, or by mixing it with certain materials already mentioned (§ V.). Great care should be taken that the water is not kept in vessels which are not well covered, or which are so situated as to be exposed to the reception of impurities, whether in the shape of gases or of injurious particles from the atmosphere (as in the case of propinquity to the closets, drains, cellars, etc.) Open vessels are especially liable to a deposit from the atmosphere, frequently in a not inconsiderable quantity, according to circumstances (hospital wards, dead-houses, etc.), of highly noxious molecules. The test with collodium paper in a hospital ward demonstrates this conclusively.†

The choice of medicated dressings, solutions, salves, plasters, or poultices, etc., must be determined according to each individual case.

VIII. Fluid dressings are applied to wounds and ulcers by means of pencils‡ of camel's hair, wool, cotton, charpie, etc.,

* By means of irrigators, the local baths of institutions where veneral patients use one vessel, sitz-baths, hand-baths, etc., can be dispensed with, and thereby one great source of infection avoided. For the special use of certain medicaments the local baths still maintain their usefulness, but even then they should be kept scrupulously clean.

† As far as possible, the patients should make use of smooth white glass or porcelain vessels; metallic vessels should always be kept highly polished.

‡ Pencils are made from wool, and so many only as are sufficient for immediate use should be made. Pledgets of cotton, fastened to the end of a little stick,

and the wound or ulcer is then covered with cotton, a piece of linen rag or charpie, all of which material should be scrupulously clean; there should be no doubt as to their origin, previous use, or the cleanliness of the hands which prepared them, or of the place in which they have been kept. Cotton is, as a rule, the most appropriate and best dressing.*

Ulcers and wounds should be manipulated, whenever possible, not directly with the fingers, but by means of small forceps, which should be most carefully cleansed immediately after use. Dressings are retained in position by means of adhesive plaster, or by means of collodium. If bandages are requisite, those of flannel should be preferred. In male patients with disease of the genitals the suspensory is a very valuable adjunct for the maintenance in position of dressings, and the preservation of cleanliness; to it should be attached a horizontal, pocket-shaped receptacle for the penis. By this means and the use of cotton in thin sheets (and in pledgets for the meatus urinarius), soiling of the patient's linen and person will be avoided, while, at the same time, all pressure, friction, and motion is guarded against, and an equable temperature maintained at the end of the penis. In patients able to walk about, the T-bandage is made use of.

IX. For the proper treatment of the vagina, our already abundant stock of apparatus is daily on the increase. Among dressings the tampon is of great value; as a rule, it is made of cotton or charpie, and of a size suitable for the case in hand. It is used with or without moistening, or smearing with various

answer every purpose in applying the dressing. The same pencil should never be used for several patients or for different dressings.

* As is well known, cotton absorbs fluids only after it has been prepared by boiling in water, or maceration in alcohol and subsequent drying. Kept in a clean place, and prepared by clean hands, cotton is the most excellent dressing. I have made constant use of it for the last quarter of a century (since 1841), to the great benefit of the patients in the large division of the hospital under my care. You can easily and quickly shape and adapt cotton to every purpose and occasion where it is customary to use charpie. The attempt to use filter-paper, simple or imbued with medicaments, is proper only where cotton cannot be procured. The latter may be applied in thin layers when indicated, or in larger masses (balls, tampons, etc.), and is always more adaptable than charpie.

substances, and should be left in the vagina for only a short time—never more than a few hours—as it will become a new source of irritation, secretion, and inflammation. Sponges are to be used as tampons only exceptionally. As dilators of the cervix uteri, properly-shaped sponge tents, or tents of laminaria (solid or longitudinally hollow), may be used. Both these kinds of dilators may be medicated. These, also, should only be left in for a few hours. Dilators made of the gentian root are not to be recommended.

X. Plasters should be spread with the hand upon fine soft linen; they should be as fresh as possible, and if they are to be kept, should be covered with a piece of similar linen. In the majority of cases, by their own adhesive properties, they maintain their position without other aid. If, after their use, hardened portions of them adhere to the skin they may be removed by rubbing on fat or oil; and if this does not remove them, apply alcohol, ether, turpentine, etc. Profusely discharging ulcers and wounds require to be frequently changed, and also that small holes be cut in the plaster, or that the latter be put on in strips. To keep out the air, plasters are also used, especially the diachylon soap plaster, etc.; impermeable textures, such as vulcanized rubber, gutta-percha, parchment, etc., form better covering material. Tin foil is also used for the same purpose.

XI. The use of poultices, in the shape of bran or meal, and likewise fomentations for wounds or ulcers, requires the greatest care, especially in public institutions, where their use should be as seldom and restricted as possible, on account of the great danger of their proving the vehicle for the spread of disease. Those materials which are made use of as suspensory bandages, or as means of enveloping a part, are to be kept scrupulously clean, and hence should be frequently changed. Warm fomentations are preferable to bran poultices, as moistened compresses may be covered with layers of cotton, and an impermeable covering, such as parchment, gutta-percha, or india-rubber. A variety of bags and apparatus are recommended, and are well adapted for the application of cold, of cold water, and of ice. Well-cleaned bladders or intestines of calves, pigs,

or sheep can always be procured, and will serve the purpose perfectly.

XII. For the application of powders, dry or slightly moistened camel's-hair pencils may be used, or blow-pipes, either simple or with the addition of elastic air-balls, such as are used in applications to the mouth, throat, and vagina. In using powerfully caustic fluids, a dropping-glass will be found most convenient.

XIII. Medicated injections should be administered skilfully and carefully, and by means of syringes made for the purpose, and particularly adapted to the organ which may be the subject of treatment, whether the urethra, bladder, uterus, throat, nose, ear, or mouth. If the same syringe be used for several patients, a nozzle should be adapted to each individual case. The most scrupulous attention should be paid to cleanliness. The best syringes are those made of hard rubber or glass, as they are not affected by caustic solutions, and are easily kept clean. Pewter syringes, however, will answer for most cases, provided they are carefully cleansed after being used. For subcutaneous injections, syringes especially adapted are used, and a separate one for each drug; they should be immediately cleansed after each injection; those which have been used in syphilitic cases should not, of course, be employed upon non-syphilitic patients.

XIV. The thorough performance of an inunction course requires a strong, well-practised hand. This will be best accomplished by covering the hand with soft leather (shamois), or a piece of wollen or cotton texture, and the prescribed material should be applied only in small portions, and rubbed in slowly and carefully.

Courses of inunction which extend over a long period of time are necessary in many of the forms of syphilis, and should be carried out strictly under definite rules, including regulation of diet, and the administration of other remedies, the particulars of which will be found elsewhere.

XV. Inhalations are becoming more popular in the treatment of syphilis, as the indications of their use becomes more thoroughly appreciated, and the apparatus simplified and rendered more accessible, The administration of remedies in

this form can only be trusted in the hands of very intelligent patients, or in persons who have been taught by experience.

XVI. General and local fumigations are sometimes specially indicated in the treatment of some forms of syphilis. For this purpose many appliances have been suggested which answer very well, but they may be dispensed with by the use of cloaks and coverings of impermeable texture—the best is vulcanized india-rubber cloth. The pan of burning coals upon which the fumigating agent is sprinkled (calomel, cinnabar, iodide, or red oxide of mercury, etc.) should be so arranged as to exclude all possible danger from fire, or of permitting the vapor getting into the nose, mouth, or respiratory passages of the patient.*

The diffusion of the vapor into the chamber of the patient vitiates the atmosphere, and injures the walls and furniture to such an extent, that it is desirable only to administer this treatment in a room where no injury can be done to the surroundings.

XVII. Suppositories, which have not been generally used until recently, should be prepared of materials that will retain their shape under an ordinary temperature, so that they can be easily introduced into the rectum. The time of their introduction will depend on the effect desired to be produced. The use of suppositories of gray ointment, iodide of potassium, etc., should always follow an evacuation of the bowels, which, if necessary, should be artificially produced. Their introduction should be confided to trustworthy hands alone, and care be used that they are pushed well up above the sphincter muscles.

XVIII. Highly important as it is to guard against immediate contact of the fingers with the patient, especially of any of the syphilitic lesions, to avoid contamination with inoculable fluids, it is equally important that the strictest discipline be enforced regarding the use of utensils, urinals, and especially surgical instruments. Of course the latter should be kept scrupulously clean; but the very greatest attention should be paid to those instruments which have to be used in common with different

* A small sand bath, with heat supplied from a spirit lamp, is most generally used in private practice. It is more convenient, cleaner, and less dangerous.

patients—for instance, sounds, forceps, cutting instruments, needles, catheters, bougies, etc. Care should be exercised regarding the fluids in which they are washed, as well as the material used in drying them.

The physician should always be suspicious of water which has been standing in a hospital, and it should be a rule to mix in all water destined to come in contact with the patients, a little chloride of lime, chlorate of potassa, or carbolic acid; the latter is particularly serviceable if the water is to be used in cleansing the mouth, nose, and pharynx. (See sections V. and VII.)

XIX. Patients who apply the remedies with their own hands should be thoroughly instructed by the physician in the different steps of the process; such as the application of the dressing, the use of injections, the inunction, etc. As far as possible, the local application, especially of severe remedies (caustics and the like), should be performed only by the physician. The surest way to secure successful results in treatment, is for the physician to commence the applications, carefully instructing the patient in each step, and giving precise directions regarding all that he wishes to be done. It is advisable, when giving these instructions to the patient, to omit all superfluous explanations, and impress him with that only which is absolutely necessary to accomplish the desired purpose. If the latter fails, the penalty falls upon the patient, and not upon the physician. Regarding the changing and renewing of the dressings, the administration of injections, etc., and the time and mode of taking baths, explicit directions should be given to the patient, and their execution constantly supervised.

XX. In the treatment of venereal patients, the use of powerful and poisonous articles is frequently resorted to; for obvious reasons these remedies should be ordered only in the smallest quantities consistent with their proper use, and trusted in the hands of patients only when such a course is unavoidable. Moreover, many of such articles are injured by long standing, and it is often desirable to make a change. In this specialty, it is particularly incumbent upon the physician to watch carefully the results of the administration of his remedies.

XXI. Those remedies* which are really necessary, should, as a rule, be prescribed in the simplest form, without any combination with useless preparations. Personal considerations may, in exceptional cases, warrant special adaptations of prescriptions, in the way of color, taste and smell, as also particular devices for rendering them more elegant and attractive. In doing so, the practitioner must use his own discretion according to the case, never forgetting that the efficacy of the main ingredients is not to be in the least jeoparded.

Real economy, when treating persons of moderate means, or hospital patients, consists not in ordering the cheapest, but the most judicious remedies. Certain articles have been introduced in the treatment of venereal diseases, especially decoctions and preparations made up for the most part of foreign and costly drugs, which exert little or no beneficial effects. The use of these should be either entirely omitted by the practitioner, or limited to such cases as present a direct indication which the known composition of the preparation seems likely to meet.

* The treatment of venereal is generally much more expensive than that of other diseases, since it necessitates the long-continued use of remedies which are for the most part dear, and requires as adjuncts good diet, careful attendance, baths, equal temperature, etc. Remedies for the formation of perspiration and the secretion of urine, formerly so much in vogue, are now much less resorted to, being supplanted by more simple and natural means, such as friction, coverings for the body, vapor baths, warm baths, etc. The same may be said of the old-fashioned, complicated purging compounds. If the use of any laxative be indicated, the simplest is the best. The mineral waters are preferable (Ofen, Püllna, Leidschütz, etc.), or the simple purgative pill of the Austrian Pharmacopœia. ℞ Pulv. aloes, ʒi., pulv. jalap, ʒ ss., Castile soap, gr. x., anise-seed, gr. v. To be made into 20 pills.

PRESCRIPTIONS IN THE TREATMENT OF GONORRHŒA AND THE SEQUELÆ OF GONORRHŒA IN BOTH SEXES.

1. ℞ Acetate of lead crystals ʒ j.–ʒ ij.
Distilled water..... ℥ vj.

M. For local baths, poultices, and fomenting lotions, injections, tampons, etc.; for inflammation of the mucous membrane and the epidermis, especially in shedding of the epithelium, (a rag or cloth, well saturated, to be applied fresh every hour); in clap of glans penis, labia majora, vagina gleet, lymphangitis dorsalis penis, phimosis, and inflammation of the lymphatic glands.

2. ℞ Crude alum ʒ i.–ʒ ij.
Distilled water..... ℥ vj.

M. Similar to No. 1.

3. ℞ Sulphate of zinc..... ʒ j.
Distilled water..... ℥ vj.

M. Similar to No. 1.

4. ℞ Acetate of zinc..... ʒ j.
Distilled water..... ℥ vj.

M. Similar to No. 1.

5. ℞ Tannic acid..... ʒ j.
Distilled water..... ℥ vj.

M. Similar to No. 1. As this will stain the linen, it must be used carefully.

6. ℞ Tinct. nutgalls..... ℥ j.
Distilled water ℥ v.

M. Similar to No. 1. The same precaution to be used as in No. 5.

7. ℞ Carbolic acid ʒ ss.–ʒ j.
Distilled water..... ℥ vj.

M. Similar to No. 1, and of especial service in ulcerating sores, and suppurations with fetid smell, as met with in pregnant and parturient women.

8. ℞ Chlorate of potash..... ʒ j.–ʒ ij.
Distilled water..... ℥ vj.

M. Similar to No. 7.

9. ℞ Hypochloride of lime..... ʒ vj.
Distilled water..... ℥ vj.

M. Similar to No. 7. Mix exactly.

10. ℞ Chloride of zinc..... ʒ j.
Distilled water..... ℥ vj.

M. Similar to No. 7.

11. ℞ Permanganate of potash..... ℈ j.–ʒ ss.
Distilled water..... ℥ vj.

M. Similar to No. 7. Decomposes very easily, stains the linen, and has no particular advantages over No. 8, besides being more expensive.

12. ℞ Fresh lime water..... ℥ ss.
Caustic soda..... gr. j.
Distilled water..... ℥ vj.

M. Similar to No. 1. Excellent in diphtheritic deposits and secretions of mucous pus, in abundant and at the same time quickly fermenting fetid secretions. Of especial value when used alternately with carbolic acid, ℞ No. 7.

13. ℞ Borate of soda..... ℥ ss.
Distilled water..... ℥ vj.

M. Similar to No. 7.

14. ℞ Laudanum..... gtt. xv.
Distilled water..... ℥ iij.

M. 1–2 teaspoonfuls to be taken every one, two, or three hours, internally, in painful inflammations of the mucous membrane of the urethra, and pain at the time of and after urinating.

15. ℞ Laudanum..... gtt. xv.
Cherry-laurel water..... ʒ iij.–ʒ vj.
Distilled water..... ℥ iij.

M. Similar to No. 14. Internally for very weak and sensitive persons, especially those suffering from anæmia and pulmonary diseases, who cannot endure cold applications and ordinary anodynes.

16. ℞ Laudanum..... gtt. xv.
Oil emulsion..... ℥ iij.

M. Similar to No. 14.

17. ℞ Laudanum..... gtt. xv.
Cherry-laurel water..... ʒ iij.–ℨ vj.
Oil emulsion..... ℨ iij.

M. Similar to No. 14. The oil emulsion may be replaced by any other mixture, such as mucilage, emulsion of almonds, decoction of hemp or flaxseed, marsh-mallow, or red poppy-flowers, etc.

18. ℞ Ext. hyoscyamus.....gr. vj.–ix.
Oil emulsion or mucilage, or diluted cherry-laurel water (1:7). ℨ iij.

M. Similar to No. 14.

19. ℞ Watery extract of opium.....gr. j.–ij.
Pulv. liquorice root..... } āā gr. xv.
Gum arabic..... }

Mix exactly, and divide in six powders, one to be taken every two, three, or four hours to accomplish the same purpose as No. 14.

20. ℞ Dried ext. hyoscyamus..... gr. iij.–vj.
Pulv. liquorice root..... } āā gr. xv.
Gum arabic..... }

M. Similar to No. 19.

21. ℞ Ext. cannabis indicus..... gr. j.–ij.–iij.
Pulv. liquorice..... } āā gr. xv.
Gum arabic..... }

M. Similar to No. 19. Uncertain, as we have no means of knowing whether we get a reliable preparation. If genuine, it is the simplest sedative to act on the organs of generation, at the same time not unpleasantly exciting the imagination.

22. ℞ French lactucarium.....gr. j.–ij.–iij.
Sugar..... ʒ ss.

M. Unreliable—even if a good preparation. To serve the same purpose as No. 19.

23. ℞ Muriate of morphia.....gr. j.
Distilled water, or solution of gum arabic or diluted cherry-laurel water (1:7)..... ℨ iij.

M. Similar to No. 14.

24. ℞ Muriate of morphia..... gr. j.
Pulv. liquorice root..... } gr. xv.
Sugar..... }

Mix exactly and divide in six powders. Similar to No. 19.

25. ℞ Chloral hydrate..... ʒ ss.
Distilled water..... ℥ iij.

M. Take one-half, and if the desired hypnotic effect is not produced within five minutes take the remaining portion. (A fresh preparation of the hard crystals should be used.) A corrigens of syrup of orange-peel may be added. Especially to be recommended at bedtime, if sleep is wanted.

26. ℞ Aqueous ext. of opium.....gr. j.–gr. ij.
Cocoa butter... ʒ vj.

Mix exactly, and make six suppositories. Apply one to two daily, if there is great pain during and after urinating, in the frequent painful desire, and especially, if at the same time there is diarrhœa, and in tenesmus, and also in want of sleep. If to fulfil the last condition, it should be taken at bedtime and once during the night.

27. ℞ Muriate of morphia gr. j.
Cocoa butter..... ʒ vj.

Similar to No. 26.

28. ℞ Ext. of hyoscyamus.....gr. iij.
Cocoa butter..... ʒ vj.

Similar to No. 26. For patients who cannot use opium, and especially if digestion is deranged, or there is any tendency to constipation.

29. ℞ Ext. of belladonna. gr. j.–ij.
Cocoa butter..... ʒ vj.

Similar to No. 26. Very good in frequent desire to urinate and involuntary discharge of urine, especially if opiates and hyoscyamus cannot be used. The extract of belladonna is often unreliable, is very intense in its effects on some persons, and should be used with great caution.

30. ℞ Muriate of morphia.....gr. v.
Distilled water..... ʒ ij.

M. To be used hypodermically. Producing sleep and relieving pain; to be administered at night as occasion may require.

31. ℞ Sulph. of atropine.....gr. j.
Distilled water..... ʒ ij.

Similar to No. 30; if opiates do not agree with patient, or are to be otherwise avoided.

32. ℞ Tinct. of opium.....gtt. xv.
Mucilage ℥ j.
Distilled water..... ℥ vj.

Similar to Nos. 14 and 26. Use as an enema one-third or one-half. The point of the syringe is to be introduced into the rectum as far as possible, and the solution to be injected very slowly.

33. ℞ Pulv. camphor.....gr. j.–gr. ij.
Emulsion of oil or mucilage.... ℥ iij.

Mix exactly. A tablespoonful to be taken every two or three hours at night if there is a frequent desire to urinate, or if there is any pain during and after urinating, frequent erections and emissions, and erotic excitement generally.

34. ℞ Pulv. camphor.....gr. j.–ij.
Watery extract of opium.....gr. j.–ij.
Oil emulsion or mucilage..... ℥ iij.

Similar to No. 33; of especial value in severe pains, and at the same time desire for stools; also in diarrhœa.

35. ℞ Triturated camphor gr. j.–ij.
Lupulina..... } ää gr. xx.
Extract of hops..... }

Similar to No. 33. Mix and make fifteen pills; strew with lycopodium. Two to be taken every two or three hours, especially at night.

36. ℞ Pulv. camphor.....gr. j.–ij.
Watery extract of opium.....gr. j.–ij.
Lupulina } ää ℈ j.
Ext. hops..... }

Similar to No. 35, and to be taken in the same manner. Should not be more than a year old.

37. ℞ Lupulina..... } ää ʒ ij.
Sugar..... }

Mix exactly and divide in twelve powders. One to be taken every two or three hours (double in evening). Simple, but not always a reliable

sedative for sexual organs in frequent erections and pollutions; if painful sensation and desire to urinate, give with opium like No. 19, or camphor, like No. 33.

38. ℞ Tinct. of digitalis..... ʒ j.
Cherry-laurel water..... ʒ ij.

M. One teaspoonful to be taken in frequent erections and pollutions of anæmic persons, especially if heart action is increased. At bedtime a double dose.

39. ℞ Norwood's tinct. of veratrum viride.... ʒ j.
Cherry-laurel water..... ʒ ij.

Similar to No. 38.

40. ℞ Bromide of potassium..... ʒ j.
Distilled water..... ʒ iij.

M. Take one tablespoonful in the morning and two or three at night. In frequent erections and pollutions, especially in anæmic and epileptic persons with increased heart action. In habitual pollutions the dose may be increased to ʒ j. daily.

41. ℞ Bromide of potassium.....gr. vj.
Distilled water..... ʒ iij.
Syrup of orange-peel..... ʒ j.

Similar to No. 40.

42. ℞ Balsam of copaiba..... ʒ j.

M. Twenty, thirty, forty, to sixty drops in a tablespoonful of water in the morning, one hour before breakfast; noon, an hour before dinner, and at bedtime. Instead of water, black coffee may be used, or tea, or any aromatic infusion, or an aromatic water like peppermint or cinnamon. It is well to begin with the small dose, to be increased ten drops every day, but never more than sixty drops at a dose. This method of dropping it into the water is, according to our experience, the safest, and agrees with most patients better than in any other liquid form. The capsules, which contain five to ten drops each, are more expensive, and often pass off unopened. Another good method of giving it is in the form of a paste. It is excellent after the inflammation of gonorrhœa of the urethra has subsided, but of no use in the gonorrhœa of other parts.

If, during the first five or six days of its use, no decrease of the discharge is noticed, it should be abandoned as useless; this will serve as a good rule to be applied to all balsamic and internal remedies for gonorrhœa of the

urethra. The urine assumes the peculiar odor of the balsam. It sometimes produces an eruption on the skin, such as erythema, and even urticaria, which disappear, however, on stopping the use of the balsam. This remedy, it will be well to remember, is often adulterated.

43. ℞ Balsam of copaiba..... ℥ j.
Oil of sweet almonds..... ℥ ss.
Simple syrup..... ℥ iss.
Mucilage..... } aa ℥ iiss.
Distilled water..... }

M. Take two to three teaspoonfuls three times daily, like No. 42, increasing to five or six teaspoonfuls each time. One teaspoonful contains ten drops of copaiba.

44. ℞ Balsam of copaiba..... } aa ℥ iss.
Pulverized cubebs..... }

Make into sixty pills. Take three morning, noon, and night, to be increased to four, five, or six at one time. See No. 42 in regard to its use.

45. ℞ Balsam of copaiba..... } aa ℥ j.
Syrup of tolu..... }
Peppermint water..... ℥ ij.
Diluted nitric acid..... ʒ ij.

M. Take three to six tablespoonfuls a day (known as Chopart's Mixture). Has no special advantage over other mixtures, as at times it is not well digested.

46. ℞ Pulverized cubebs (recently prepared)... ℥ j.

M. Divide in twenty-four powders. Take three powders daily, like No. 44, to be increased to six and nine each day.

47. ℞ Cubebs (recently pulverized)..... } aa ʒ iss.
Alcoholic extract of cubebs..... }

Make into sixty pills. Three pills three times a day, to be increased to four, five, or six pills. A very efficacious but expensive medicine, but is generally better borne by patients than any balsalmic preparations.

48. ℞ Purified turpentine..... } aa ʒ iss.
Pulverized cubebs..... }

Make into sixty pills. Efficacious, like No. 44, but not as good, and disliked by many. Balsam Peru and Canadian balsam may be used in the

same way in protracted diseases. Tar, which is so efficacious in chronic blennorrhœa, cannot be recommended on account of its bad effects on the stomach and intestines.

49. ℞ Balsam of tolu.....
Fresh powdered cubebs..... } ää ʒ iss.

M. To be made and used in the same way as No. 44. Not as good as turpentine, but better borne by most persons.

50. ℞ Gunjah balsam.

Similar to No. 49, and used in the same way.

51. ℞ Powdered camphor.....gr. vi.
Powdered cubebs.....
Alcoholic ext. of cubebs..... } ää ʒ iss.

Make into sixty pills, and used in the same manner as No. 41. In clap with frequent desire to urinate.

52. ℞ Tar water..... ℥ iij.
Peppermint or cinnamon water..... ℥ j.

M. One tablespoonful three times a day, increasing to four, five, or six a day in chronic gonorrhœa with catarrh of the bladder, without affection of the kidneys, however. Some patients cannot bear this well. (See No. 48.) Pitch-water is prepared by macerating powdered pitch for 24 hours: strength, 1 ounce to six of water.

53. ℞ Uva ursi leaves..... ℥ j.
Water.....Oij.

M. Boil down to one pint. To be used during the day in doses of two to three tablespoonfuls in chronic gonorrhœa with catarrh of the bladder, especially if there is any tendency to catarrh of intestines. Is better borne than No. 52.

54. ℞ Liquor sesquichloride of iron..... ♍ j.
Distilled or cinnamon water..... ℥ iv.

M. One tablespoonful two to six times a day in the chronic class of anæmic persons, especially in the bleeding from the kidneys, the bladder, the uterus, the vagina, and the urethra, and generally in anæmia, and also as an alternate dose with other remedies in different syphilitic forms, alternately with iodine and mercury, quinine, and other tonics.

55. ℞ Tannic acid.....grs. viij.–xij.–xvj.
Distilled water..... ℥ iv.

Similar to 54. The addition of the syrup or tincture of orange-peel, or the aromatic waters, as cinnamon and peppermint, makes this preparation pleasanter. Rhatany, catechu, or matico, and other preparations of this kind, act solely on account of the tannin they contain. They are not borne as well, however, as the tannin, and are more expensive.

56. ℞ Acetate of lead.....gr. vj.–ix.–xij.
Distilled water..... ℥ iii.

M. To be injected, morning, noon, and night, into the urethra in cases of gonorrhœa. Best adapted to commence with in cases of gonorrhœa where inflammation is just ceasing, great tenderness, and excoriation of the mucous membrane. The patient is to urinate first, then inject some clear water, which is to be discharged immediately, and then the remedy is to be introduced and left in the urethra from three to five minutes, unless the parts are very sensitive. The addition of narcotics, especially opiates, is quite useless. If an injection, carefully applied, causes very severe and lasting pain, it is evident that it is too early applied, or not a suitable remedy. Many persons cannot bear cold injections; in such cases try the tepid or warm ones. The fear that an injection might get into the bladder is unfounded, as long as the injection is conducted carefully and deliberately. The pressure of the finger on the back part of the urethra is unnecessary for the supposed protection of the bladder, and might prevent the injection from coming in contact with the most important seat of the disease.

57. ℞ Sulphate of zinc.....gr. iij–vj.
Distilled water..... ℥ iii.

M. Acts nicely in the lesser grades of inflammation, and is generally better borne than any other preparation.

58. ℞ Acetate of zinc.....grs. iij.–vj.–ix.
Distilled water..... ℥ iij.

59. ℞ Alum.....gr. vj.–ix.–xij.
Distilled water..... ℥ iij.

60. ℞ Tannin.....gr. iij.–vj.–ix.
Distilled water..... ℥ iij.

M. Stains the linen.

61. ℞ Nitrate of silver.....gr. j.–ij.–iij.
Distilled water..... ℥ iij.

M. Stains the linen.

62. ℞ Tannin.....gr. iij.–vj.–ix.
Claret wine..... ℥ iij.

M. Stains the linen.

63. ℞ Tannin.....gr. iij.–vj.–ix.
Tincture of iodine..... gr. x.–xx.
Distilled water..... ℥ iij.

M. A very intense astringent; stains the linen.

64. ℞ Subnitrate of bismuth.....gr. iij.–xij.
Distilled water..... ℥ iij.

M. To be well shaken before using in chronic gonorrhœa of the urethra, and slight pain during and after urination. If the patient bears the injection well the bismuth may be increased beyond gr. xij., and may also be kept in the urethra more than five minutes. In chronic cases of gonorrhœa this latter suggestion should always be observed.

65. ℞ Sulphate of copper.....gr. iij.–vj.
Distilled water..... ℥ iij.

66. ℞ Aluminated copper... gr. vj.–ix.–xij.
Distilled water..... ℥ iij.

67. ℞ Sulphate of zinc.....gr. xij.–xx.
Distilled water..... ℥ iij.

68. ℞ Alum.....gr. x.–xx.–xxx.
Distilled water..... ℥ iij.

M. Of special value if the discharge from the urethra is mixed with blood.

69. ℞ Tannin.....gr. x.–xx.–xxx.
Distilled water..... ℥ iij.

M. Tannin replaces catechu, kino, rhatany, and other vegetable astringents completely. It should not be forgotten that combinations of remedies containing tannin and metals will decompose one another, and have only the effect of the simple remedy remaining in solution. Stains the linen.

70. ℞ Nitrate of silver.....gr. vj.–ix.–xij.
Distilled water..... ʒ iij.

M. Causes indelible stains, and is apt to produce strictures. Metal syringes should be avoided.

71. ℞ Sulphate of iron gr. iij.–vj.–xij.
Distilled water..... ʒ iij.

M. Stains the clothing.

72. ℞ Liquor sesquichloride of iron.....gr. iij.–ix.
Distilled water..... ʒ iij.

M. Stains the clothing.

73. ℞ Freshly pulverized ergot..... ʒ ij.
Cinnamon powder.....
Sugar..... } aa ʒ j.

Mix exactly, and make twenty-four powders. Take three, four, or five powders a day, especially in hemorrhages (often of unknown causes), and very good in abnormal hemorrhage from the uterus, and in utero-vaginal blennorrhœa.

74. ℞ Extract of ergot.....
Peruvian bark..... } aa ʒ iss.

Make sixty pills. Two, three, or four pills a day, like No. 73, especially in well-marked cases of anæmia.

75. ℞ Acetate of lead..... ʒ iij.

M. A teaspoonful to a pint of water, to be used as a wash, lotion, injection, or introduced as a tampon into the vagina, and in the rectum in blennorrhœa, especially in cases of excoriation. For the same purpose the cheaper remedies will answer, such as the sulphate or acetate of lead; or of alum and tannin one teaspoonful to two pints of water; the more expensive extracts and decoctions of drugs containing tannin belong to this class, such as rhatany, Peruvian bark, oak bark, willow bark, and matico; they are more expensive, at the same time less effective than the others. These decoctions of astringent remedies, if prepared by the apothecaries, are very costly, and without any corresponding advantages. If such remedies are deemed necessary, they may be replaced by dissolving their extracts in water. The preparation of the decoctions by patients are both inconvenient and unreliable.

76. ℞ Sulphate of copper..... ʒ iij.
Distilled water..... ℥ iij.

M. Undiluted for saturating tampons in blennorrhœa of the vagina, especially in granulations. Diluted with six parts of water (like No. 56), a very effective remedy. Acetate or muriate of copper acts as well, but is more expensive.

77. ℞ Chloride of lime..... ℥ j.
Distilled water..... ℥ vj.

Mix exactly. Well shaken. (Like No. 56.)

78. ℞ Nitrate of silver..... ↄj.
Distilled water..... ℥ j.

M. In attempting the abortive treatment of gonorrhœa with the necessary precaution—seldom applicable—a proper syringe is required in order to keep it within the limits of the urethra. Sulphate of copper may be used in the same proportion.

79. ℞ Red oxide of mercury.....gr. iv.
Simple cerate (or sweet butter)..... ℥ ss.

M. Used to grease bougies and catheters in chronic gonorrhœa of the urethra, and tampons in granulations of the vagina.

80. ℞ Iodine..... gr. j.
Iodide of potassium.....gr. vj.–xij.
Glycerine..... ℥ ss.

M. To be applied with pencil to granulating mucous membrane of clap, especially of the vagina, and to moisten the tampon.

81. ℞ Tinct. iodine.....
Tinct. nutgalls..... } aa ʒ ij.

M. To be applied with pencil to external skin in cases of deep inflammation affecting glands, muscles, ligaments, periosteum, bones, joints, testicles, and ovaries, but where there is no inflammation of the skin itself. It is to be applied from two to six times daily, according to circumstances. The applied tincture has to dry, which will take ten to fifteen minutes. To derive good results from this effective remedy, which is preferable to vesicants, it should be applied energetically, even to the formation of a scab. Only the first application causes pain to some patients.

82. ℞ Liquor sesquichloride of iron..... ℥ ss.
Distilled water.... ℥ iij.

M. Undiluted (like No. 76), serviceable in bleeding excoriations and hemorrhages generally. Diluted (like No. 56), in similar cases and anæmia. Stains the clothing.

83. ℞ Chlorate of potash..... ℥ ss.
Distilled water..... ℥ vj.

M. Well shaken. (Like No. 56.) Of special value in fetid secretions of the uterus and vagina; for lotions and injections; also for tampons. Diluted from one to six, and the potash will dissolve entirely.

84. ℞ Permanganate of potash (fresh)..... ℥ ss.
Distilled water..... ℥ vj.

M. Stains and decomposes easily.

85. ℞ Carbolic acid..... } aa ℥ ss.
Alcohol..... }
Distilled water..... ℥ iij.

Similar to No. 83. If the carbolic acid is mixed with equal parts of alcohol it remains undecomposed and is easily mixed with water.

86. ℞ Tinct. iodine..... ʒ iij.
Distilled water..... ℥ vj.

Similar to No. 83.

87. ℞ Tinct. iodine..... } aa ʒ iij.
Tinct. nutgalls..... }
Distilled water..... ℥ vj.

Similar to No. 83.

88. ℞ Sulphate copper..... ʒ ss.
Distilled water..... ʒ ij.

M. Used as a caustic; to be applied with a pencil.

89. ℞ Tannin..... ʒ ij.
Distilled water..... ℥ ij.

M. For application with a pencil, and for the preparation of tampons for blennorrhœa of the vagina, parts of the anus and labia majora. For application in excoriation and hemorrhages.

90. ℞ Tannin..... ʒ ij.
Glycerine..... ℥ ij.

S. Similar to No. 89.

91. ℞ Liquor sesquichloride of iron..... ʒ ij.
Glycerine..... ℥ j.

Similar to No. 89. Used especially in erosions, bleeding, and for the preparation of compressed sponges.

92. ℞ Tinct. iodine..... ʒ ij.
Iodine.....gr. vj.

M. To be applied to the vagina in blennorrhœa with excoriations, and granulations immediately before tamponing the vagina, once a day, or at least once in two days.

93. ℞ Nitrate of silver..... ʒ j.
Distilled water..... ℥ ij.

Similar to No. 92. Used for injection of the cervical canal, and even of the uterus, with the necessary precautions.

94. ℞ Tinct. of iodine..... ʒ ij.
Iodine.....gr. vj.
Tinct. nutgalls..... ʒ j.

M. To be applied to soft, dispersed, and flat condylomata morning and night. Afterwards to be covered with powder (No. 99), or with pulverized alum, or sulphate of zinc. These mild corrodents are only applied to the pointed warts, if they cannot be removed by instruments, or if stronger caustics are not indicated.

95. ℞ Liquor sesquichloride of iron..... ʒ ij.
Chloric ether..... ʒ ss.

Similar to No. 95. Of special use in bleeding condylomata.

96. ℞ Strong acetic acid..... ʒ ij.

Similar to No. 94. The ordinary acetic acid is sufficient only in very light cases.

97. ℞ Bichloride of mercury.....grs. xij.
Sulphuric ether..... ʒ ij.

Similar to No. 94.

98. ℞ Concentrated nitric acid (pure)..... 3 ij.
Nitric ether..... 3 ss.

Similar to No. 94.

99 ℞ Freshly pulverized sage..... 3 ij.
Burnt alum..... } aa 3 j.
Sulphate of copper..... }

Make a fine powder, to be applied once or twice daily with a moist pencil to the previously moistened condylomata, which is to be covered immediately with some cotton, if they are numerous or flat, and seated in groups, and when they are so located that the powder can be applied to the points. After the falling off of the dried-up condylomata, and the new formations, which may cause suppuration, the application of a diluted liquor plumbi, or sugar of lead solution, is advisable.

PRESCRIPTIONS IN SKIN AFFECTIONS, CONTAGIOUS VENEREAL SUPPURATIONS, AND THEIR SEQUELÆ; INFLAMMATION OF THE GLANDS AND ABSCESSES.

100. ℞ Sulphate of copper..... gr. xv.
Distilled water 3 j.

M. After previous cleansing, to be applied with a pencil in venereal and syphilitic ulcerations, chancre, chancroid, contagious and diphtheritic suppurations, as well as those of the cellular tissue and lymphatic glands. The resulting scab falls off or loosens itself in one or two days, and, as a rule, there is then a clean suppurating surface. This solution cauterizes, but affects only the excoriated and ulcerated skin, and does not affect the parts that are free from exudation. In these cases it is preferable to other caustics.

101. ℞ Carbolic acid..... } aa 3 ss.
Alcohol..... }

Similar to No. 100. To be used frequently in extensive suppuration; but with caution, owing to its toxic effects. Of good service in scurvy, sphacelus, and gangrene, when diluted with two, three, or four parts of spirits of wine.

102. ℞ Crystallized nitrate of silver.....gr. x.–xv.
Distilled water..... 3 j.

M. This often causes the formation of scabs which are not perfectly adherent, and allows pus to collect underneath the crust. The solid "stick" or "crayon" produces a much better effect.

103. ℞ Iodide of potassium.....gr. x.
Iodine.....gr. j.
Distilled water.....3 j.

Similar to No. 100.

104. ℞ Tinct. of iodine.....3 j.
Iodine.....gr. j.–iij.

Similar to No. 100.

105. ℞ Bichloride of mercury.....gr. v.
Alcohol.....3 j.

Similar to No. 100. Of special service in syphilitic, excoriated, and ulcerated infiltrations. The part, after being well cleansed, to be touched with a pencil charged with the solution, and then covered with cotton. Instead of spirits of wine, sulphuric ether may be used; it causes a precipitate and evaporates quickly, or collodion may be used; the latter, however, is not more effectual, and is more difficult of application.

106. ℞ Red oxide of mercury.....gr. iij.–vj.
Soft cerate.....3 j.

Similar to No. 100.

107. ℞ Sulphate of copper.....gr. xv.
Soft cerate.....3 j.

Similar to No. 105.

108. ℞ Crystallized nitrate of silver.....gr. x.–xv.
Soft cerate.....3 j.

Similar to No. 105.

109. ℞ Sulphate of copper.....gr. j.
Distilled water.....3 ss.

M. To be used with a pencil on clean suppurating surfaces.

110. ℞ Carbolic acid.....gr. j.
Alcohol.....
Distilled water..... } aa. 3 ij.

Similar to No. 109.

111. ℞ Crystallized nitrate of silver.....gr. j.
Distilled water.....ʒ ss.

Similar to No. 109.

112. ℞ Iodide of potassium.....℈j.
Distilled water.....ʒ j.

Similar to No. 109. Especially valuable in diphtheritic forms of disease.

113. ℞ Iodine.....gr. j.
Iodide of potassium.....gr. x.
Distilled water.....ʒ j.

M. In the formulæ from 109 to 113, simple or soft cerate may be used in place of distilled water. The ointment has this advantage over the solution—that the dressings, not adhering to the affected parts, can be easily removed without causing pain, or injuring the granulating surfaces. ℞ 113 may also be used as an injection in ulcerating and fistulous canals. It should be diluted with one, two, or three parts of water.

114. ℞ Iodine.....gr. iij.
Alcohol.....ʒ j.

M. Similar to No. 109. This preparation may be diluted with water or spirits. The spirituous solution takes effect much more rapidly and produces a deeper impression. The combination of glycerine or collodion in these preparations of iodine, while more expensive, offers no corresponding advantages.

115. ℞ Caustic potash.....gr. j.–ij.
Distilled water.....ʒ ss.

Similar to No. 109.

116. ℞ Chlorate of potash.....gr. v.–x.
Distilled water.....ʒ ss.

Similar to No. 109.

117. ℞ Fresh lime water.....ʒ j.
Caustic soda.....gr. j.
Distilled water.....ʒ ss.

Similar to No. 109. Of special benefit in diphtheritic conditions.

118. ℞ Gum camphor.....gr. j.–x.
Mucilage G. acacia..... ℥ j.

119. ℞ Tannin.....gr. v.–x.
Glycerine..... ℥ j.

Similar in effect to No. 118. Serves well in indolent, easily-bleeding ulcerations and excoriations, especially non-cicatrizing edges. Also in ulcerations at the opening and margin of the anus, urethra, vagina, os uteri and angles of the mouth, etc.

120. ℞ Liquor sesquichloride of iron..... ʒ ss.
Distilled water..... ℥ ss.

Similar to No. 119. Of special value in scurvy.

121. ℞ Arsenious acid.....gr. j.–ij.
Alcohol..... } aa ʒ ij.
Distilled water..... }

Similar to No. 120.

122. ℞ Oil of cade..... ℥ ss.–℥ j.
Finely pulverized sulphate of lime ℥ vj.

M. To be thinly spread on dressings for ulcers, and renewed three, four, five, or six times daily, taking care to cleanse the ulcers after each dressing has been removed. Of especial value in the treatment of profuse and fœtid suppuration.

123. ℞ Caustic potash..... ʒ ij.
Caustic lime..... ʒ j.

Mix thoroughly, then add sufficient spirits of wine to form a soft paste. This is known as the "Vienna caustic." It is advisable to have a fresh preparation. It is most generally used as a cautery upon the skin overlying suppurating glands. For burning venereal and syphilitic primary sores; for application to diphtheritic and gangrenous ulcers; for the removal of vegetations and growths about the anus (condylomata); gummy tumors, etc. In order to limit or control the extent of action of this caustic, a boundary-line should be made; this can be accomplished with adhesive plaster, tar paste, collodion or gutta-percha dissolved in chloroform. A wash composed of carbolic acid and concentrated spirits of wine ʒ ij., concentrated acetic acid ℥ j., and one pint of water added, will be found most serviceable in the removal of the secretions following cauterization of gangrenous and profusely suppurating ulcers.

124. ℞ Caustic potash..... 3 ij.
Fresh slacked lime..... 3 j.

M. This should be mixed thoroughly, and when melted should be run into small sticks and covered with tin-foil, wax, sealing-wax, collodion, or gutta-percha. They are serviceable and convenient for cauterization of a general character; in ulcers of cavities, such as the mouth, nose, throat, or parts of the vagina, they are easy of application.

125. ℞ Chloride of zinc..... 3 ij.
Alcohol.....

M. Add flour enough to make a paste. In effect similar to No. 123. This paste, when of proper consistence, is readily moulded into sticks, or if desired, in the form of plates; their shape, thickness, and the length of time they are to be applied depend, of course, on the character and special features of the case.

126. ℞ Concentrated sulphuric acid..... 3 ij.
Powdered vegetable charcoal enough to
make a paste.

M. This paste is applied in the shape of small plates; the form and thickness to be regulated according to the case. The plates should remain on the ulcer until the crust is completely formed and ready to fall off. The same general directions that follow No. 123 will apply in the application of the above preparation.

PRESCRIPTIONS FOR SYPHILITIC DISEASES.

127. ℞ Bichloride of mercury.....gr. i.–ij.
Alcohol..... 3 j.

M. To be used for carefully penciling nodes and suspicious outgrowths of the skin. The pencil or brush to be used should be about the size of the point to be touched; this should be done once or twice daily, the ulcers then covered with a cotton compress.

128. ℞ Chloride of zinc..... 3 i.
Distilled water..... ℥ ij.

M. For bathing and cleansing ulcers, one tablespoonful should be used in ℥ vj. of water.

129. ℞ Bichloride of mercury..... gr. j.
Diluted alcohol..... ʒ ss.–ʒ j.

M. Usually used in dressing syphilitic excoriations, erosions, superficial ulcers of the mucous membrane, the external skin, the vagina and surrounding tissues.

130. ℞ Bichloride of mercury..... gr. j.
Soft cerate..... ʒ ss.–ʒ j.

M. Similar to No 127. Of special service when applied at the mouths or openings of canals, commissure of the lips, the buttocks (anus), etc.

131. ℞ Red oxide of mercury.....gr. j.–ij.
Soft cerate..... ʒ ss.

M. To be used as a dressing with bandages. Similar in effect to No. 127.

132. ℞ Mercury plaster..... } aa ʒ j.
Soap plaster..... }

M. To be used on parts where a plaster can be conveniently applied.

133. ℞ Mercury ointment..... ʒ ss.

M. Divide into eight parts; to be used in a methodical course of treatment by inunction; one portion to be rubbed in twice daily. This is the usual course pursued in ordinary adult cases. Occasionally a less amount is used; seldom more for daily application. Care should be observed in the selection of the ointment. It should always be kept in a cool place. Great caution should be exercised lest stomatitis or ptyalism be produced.

134. ℞ Chlorate of potash..... ʒ j.–ij.
Aqua..... Oj.

M. Good river, spring, or well water, not distilled, will answer every purpose; it will be found an excellent wash for the mouth, throat, and nose while under a mercurial course of treatment. It may be applied at least six times daily. It will tend to prevent, if commenced early, an attack of stomatitis or ptyalism. It may be flavored according to the taste of the patient, by the addition of a little aromatic distilled water, such as peppermint water, one ounce to the pint. Nearly all mouth-washes and gargles may be prescribed in a concentrated form, and diluted by the patient under the instruction of the prescriber. Care must, of course, be exercised that the remedy is perfectly dissolved, and the quantity to be used properly regulated. Substances, such as corrosive sublimate, that act violently and

rapidly should always be used as written by the prescriber. The prescriptions already given as mouth-washes and gargles may, when diluted two or three times, be used as solutions for the nasal passages, either with a syringe or douche. The solution should be diluted whenever the slightest irritation is produced.

135. ℞ Alum..... 3 j.–ij.
Water..... Oj.

136. ℞ Chlorate of potash..... 3 j.
Distilled water..... ℥ iij.

M. One teaspoonful to be taken every two or three hours internally when there is a disposition to stomatitis or ptyalism, or whenever these conditions have occurred in diphtheritic ulcerations of mucous membranes.

137. ℞ Sulphate of zinc..... 3 ss.
Distilled water..... Oj.

Similar to No. 134.

138. ℞ Pulverized borax..... 3 j.–ij.
Distilled water..... Oj.

M. Suitable in cases showing a disposition to diphtheritic ulceration; in cases that are well developed, the amount of borax may be increased to three or four drachms.

139. ℞ Permanganate of potash..... ℈ i.–3 ss.
Water..... Oj.

Similar to No. 134.

140. ℞ Carbolic acid..... 3 ss.–j.
Water..... Oj.

Similar to No. 134. Suitable in cases of diphtheritic ulceration of the mouth and throat, and especially of the palatal and buccal mucous membrane.

141. ℞ Tinct. of nutgalls..... 3 ij.–℥ ss.
Water..... Oj.

Mouth-wash and gargle. Of special service in the treatment of flabby soft gums which bleed easily. The unpleasant taste of this solution may be somewhat improved by the addition of some aromatic water or tincture, such as an ounce of orange-peel, etc.

142. ℞ Tinct. of rhatany..... 3 ij.–℥ ss.
Water..... Oj.

Similar in effect to No. 134. More expensive than No. 141, and, although more pleasant to the taste, is not more effective.

143. ℞ Tinct. of Peruvian bark..... 3 ij.–℥ ss.
Water..... Oj.

Similar to No. 134.

144. ℞ Bichloride of mercury.....gr. j.–ij.
Water..... Oj.

Similar to No. 134. Especially indicated in the treatment of syphilitic excoriations and ulcerations of the mucous membrane, in diphtheritic deposits, papules, etc. For persons who have any particular dislike to the taste of this solution, a few drops of some bitter tonic may be added, such as the tincture of quassia, etc. Nothing should be added that will produce a precipitate.

145. ℞ Tincture of iodine..... ʒij.
Tincture of nutgalls..... 3 ij.
Water..... Oj.

Especially indicated in the treatment of mercurial stomatitis, or ptyalism of an acute character, as well as diphtheritic deposits, etc. The addition of an ounce of the tincture of orange-peel, or of cinnamon water will modify the unpleasant taste.

146. ℞ Green iodide of mercury..... } ää gr. iv.
Pulv. opium..... }
Pulv. liquorice..... } ää ʒj.
Extract of gentian..... }

Make into 16 pills. One pill at bedtime. On the third day, one pill morning and evening. Two days later, increase to three pills daily. After a few days the pills may be increased until four are taken daily; beyond this number they should not be administered.

147. ℞ Bichloride of mercury..... gr. j.
Pulv. liquorice..... } ää 3 ss.
Extract of gentian..... }

Make into 16 pills. One pill to be taken morning and evening.

148. ℞ Bichloride of mercury..... gr. j.
Opium..... gr. ij.
Pulv. liquorice..... } aa 3 ss.
Extract of gentian..... }

Make into 16 pills. Similar to Dupuytren's pills. To be taken in the same manner as No. 147.

149. ℞ Black oxide of mercury..... } aa gr. iv.
Pulv. opium..... }
Pulv. liquorice..... } aa 3 ss.
Extract of gentian..... }

Make into 16 pills. Similar to No. 146, and taken in the same manner.

150. ℞ Blue mass..... 3 j.
Soap..... 3 ss.
Pulv. gum arabic..... ʒij.

Make into 40 pills. Similar to Sedillot's pills.

151. ℞ Bichloride of mercury..... gr. j.
Distilled water..... ℥ vj.–viij.

One tablespoonful morning and evening.

152. ℞ Bichloride of mercury.....gr. j.
Diluted alcohol..... ℥ ij.

One teaspoonful morning and evening. (Van Swieten's solution.)

153. ℞ Bichloride of mercury..... 3 j.–iij.
Muriate of ammonia..... 3 ij.–vj.
Distilled water..... ℥ iij.–vj.

For a bath, the strength to be arranged according to the age of the patient and the extent of the disease. If the water is very hard, one or two pounds of common salt may be added previously to the addition of the corrosive sublimate solution. The temperature should not be less than 86° F. (24° R.), but better as high as 94°–97° F. (27°–29° R.), and the patient should not remain longer than half an hour in the bath. One quarter of an hour is sufficiently long, and should be repeated not oftener than every second day, until four or five baths have been taken, when it may be resorted to every day. The best time to take it is in the morning. Indicated in affections of the skin, cartilage, or bone, especially when internal remedies, external applications, and hypodermic injections have failed to produce any good results, or cannot be applied. A good substitute for fumigations in very young patients.

154. ℞ Bichloride of mercury.....gr. v.–x.
Diluted alcohol..... ℥ j.

To moisten the eruptions, and warts, by means of a soft sponge, especially in children. To be applied, once a day, one or two hours after a plain tepid bath.

155. ℞ Bichloride of mercury.....gr. v.–x.
Soft cerate or lard..... ℥ j.

Mix exactly for external use in the same manner as No. 130. To be applied cautiously if hyperæmia of the skin exists, and then not oftener than every second day.

156. ℞ Bichloride of mercury..... ʒ j.
Diluted alcohol..... ℥ j.

Corrosive sublimate solution for office use only. To be applied with a moderately moistened pencil to infiltrations, superficial ulcerations, scales, and nodes. Slight inflammation may follow, but will disappear quickly. If painfully affected, a solution of sugar of lead (No. 1) may be applied. The addition of morphine does not relieve the pains, but makes the preparation more expensive. The same may be said of camphor, which is held in great favor with some physicians. Plenck's solution will serve as a good substitute with the addition of alum or subacetate of lead. Decomposition soon takes place if kept long.

157. ℞ Bichloride of mercury.....gr. viij.–xvj.
Ammoniated mercury..... ʒ j.
Soft cerate, or lard..... ℥ j.

Mix exactly. "Strong white ointment." For old, obstinate infiltrations, warts, and scales without acute inflammatory symptoms. To favor resolution and shedding of scales. To be applied once or twice a day. The diseased parts of the skin are to be kept warm, if possible, by gloves, India-rubber cloth, oil silk, soles, etc.

158. ℞ Ammoniated mercury..... ʒ j.
Soft cerate, or lard..... ℥ j.

Mix exactly. "Simple white ointment." Similar to No. 157. Suitable for moderate inflammatory symptoms, of less obstinate and younger infiltrations, warts, scales, etc. To be applied once or twice daily.

159. ℞ Calomel..... ʒ j.
Soft cerate, or lard..... ℥ j.

Mix exactly.

160. ℞ Red oxide of mercury.....ʒj.–3ss.
Soft cerate, or lard..... ℥j.

Mix exactly.

161. ℞ Biniodide of mercury.....gr. x.
Soft cerate, or lard..... ℥j.

Mix exactly.

162. ℞ Green iodide of mercury..... 3ss.–3j.
Soft cerate, or lard..... ℥j.

Mix exactly.

163. ℞ Ammoniated mercury.....gr. vj.
Carmine..... gr. j.
Soft cerate..... 3ij.

Mix exactly. "Lip-salve" for excoriations, warts and cracks, superficial ulcerations of the lips, mucous membrane of the cheeks, red parts of margin of nose, and other parts of the skin which are normally red. The parts should be dried before the salve is applied.

164. ℞ Green iodide of mercury..... 3j.
Soft cerate, or lard..... 3ss.

Mix exactly.

165. ℞ Iodide of lead..... 3j.
Soft cerate, or lard..... ℥j.

Mix exactly. To be applied frequently to enlarged lymphatic glands. Of service in the treatment of torpid inflammatory diseases of the scrotum. The addition of opium, morphine, belladonna, conium, etc., which has been recommended, possesses no advantage.

166. ℞ Bichloride of mercury.....gr. iv.
Distilled water ℥j.

For regular hypodermic injections in the treatment of syphilis with syringes kept exclusively for this purpose. By the addition of four grains of morphine, the pains and the inflammatory symptoms will be relieved. Impartial examinations have not sustained this statement. Good selection of the place for the injection, caution, careful puncture, and rest afterwards will accomplish all that is possible to avoid pain and inflammation.

167. ℞ Artificial cinnabar..... ʒ ij. or
Calomel..... ʒ j.

For fumigations; may also be made into pastiles.

168. ℞ Iodide of potassium.....ϑ j.–ij.–ʒ ss.–ʒ j.
Distilled water..... ℥ iij.

A tablespoonful to be taken morning, noon, and night (lasting two days). Aromatic water, peppermint-water, etc., or syrup of orange-peel, make a pleasant corrigent. Excellent in general and chronic inflammations of syphilitic patients in different locations,—swellings of the lymphatic glands, in syphilitic ulcers of the skin and mucous membrane, in affections of the nose, pharyngitis, tonsillitis, and rheumatic and arthritic complaints. Most serviceable when combined with mercury and alternated with internal and external remedies; especially in scrofulous persons when the bones are affected. Coryza, catarrh, and exanthema, caused by iodine, generally disappear very quickly. Taken one hour before meals prevents the possible decomposition by starch. Not to be given to patients who are tuberculous, or are apt to raise blood. It is advisable to commence with small doses, and increase gradually from day to day. To increase the effect of the iodide of potassium, one-half to one grain of pure iodine may be added to the solution, but should be given very carefully.

169. ℞ Iodide of sodium.....ϑ j.–ϑ ij.–ʒ ss.–ʒ j.
Distilled water..... ℥ iij.

Similar to No. 168. Is borne more easily by sensitive stomachs than the iodide of potassium, but is less efficacious.

170. ℞ Iodide of potassium (or sodium)..... ʒ j.
Pulv. liquorice..... } āā ʒ ss.
Extr. gentian..... }

Make into thirty pills. Two, three, or four may be taken three times daily. Should only be increased under the direction of the attending physician. These pills are easily borne by most patients.

171. ℞ Tinct. of pellitory root..... ʒ j.–iij.
Water..... Oj.

Mix similar to No. 134.

172. ℞ Tinct. of spilantha oleracea..... ʒ ij.–iv.
Water..... Oj.

Mix similar to No. 134.

173. ℞ Tinct. of opium..... 3 j.
Tinct. of nutgalls or rhatany..... ℥ j.

To be applied with a pencil to excoriations, ulcerations and painful bleeding surfaces of the mucous membrane, especially about the mouth.

174. ℞ Purified chloroform..... 3 j.–ij.–iij.
Mucilage of gum acacia..... ℥ j.

Similar to No. 173. Painful in the beginning, but soothing after being used for a short time.

175. ℞ Carbolic acid..... 3 ss.
Alcohol..... 3 j.
Mucilage..... ℥ j.

To be used in the same manner as No. 173.

176. ℞ Syrup of iodide of iron..... 3 ss.–j.
Tinct. or syrup of orange-peel..... ℥ ss.

A teaspoonful two or three times a day. Should be prescribed only in small quantities. Excellent for chlorotic and anæmic patients. The pure, fresh syrup of the iodide of iron given alone in doses from ten to twenty or thirty drops is most reliable, but not always agreeable to patients.

177. ℞ Iodide of iron.....gr. v.–x.
Pulv. liquorice..... } āā 3 ss.
Extr. gentian..... }

Make into twenty pills. One, two, or three pills night and morning, instead of Blancard's pills, which often pass off undigested. Should never be prescribed in large quantities. It may be found best to give iron and iodine alone alternately every other day as in Nos. 168 and 54. In that case the pyrophosphate of iron is preferable.

178. ℞ Iodide of potassium..... 3 j.
Chlorate of quinine..... ʒ j.
Pulv. liquorice..... } āā 3 ss.
Extr. of gentian..... }

Make into forty pills. Of especial service in swelling of the spleen, in chloroanæmia, and in patients predisposed to diarrhœa. It is advisable to dispense with the quinine and iodide of potassium alternately.

179. ℞ Cod-liver oil..... ℥ j.
Iodine.....gr. j.

One to two teaspoonfuls, to be taken morning and evening. Glycerine may be used instead of the oil by persons who cannot tolerate the oil. In scrofulous and tuberculous syphilitics suffering from protracted chronic disease it will answer well to alternate with quinine and iron.

180. ℞ Iodine.....gr. j.
Glycerine..... ℥ j.

Similar to No. 179, but pleasanter.

181. ℞ Sarsaparilla root..... ℥ j.
Carbonate of potash..... ʒ j.
Boiling water.....Oj.

Macerate for twenty-four hours, then boil it down to ℥ vi., and strain it. It is simply a mild diuretic and diaphoretic, and serves best in cases of chronic rheumatism and arthritis.

182. ℞ Guaiacum wood.....
Sarsaparilla root..... } āā ℥ ss.
Peruvian bark.....
Boiling water..... Oj.

Macerate for twenty-four hours, and then boil down to ℥ vj., strain and express. To be used in the rheumatism and arthritis of syphilitic patients; acts as a powerful diuretic and diaphoretic; causes a sensation of burning in the throat, which, however, is of short duration.

183. ℞ Sarsaparilla root..... ℥ vj.
Herb and root of borage.....
Red-rose leaves..... } āā ʒ iij.
Senna leaves.....
Anise seeds.....

Water enough to make after boiling and straining five pints of liquid. Three to six tablespoonfuls a day. ("Roob Laffecteur.") This is the simplest formula of this formerly celebrated French remedy; by the addition of senna it acts as a mild cathartic.

184. ℞ Sulphate of atropine.....gr. j.
Distilled water..... ʒ ij.

To be dropped in the eye for the purpose of dilating the pupil. For diagnostic and therapeutic purposes.

185. ℞ Sulphate of atropine.....gr. j.
Soft cerate..... ℥ ij.

Mix exactly. To be applied externally; a piece of the size of a pea to be rubbed into the temples and around the eyebrows twice or three times a day, especially where the application into the eye is inadvisable.

186. ℞ Mercury plaster..... } āā ℥ ij.
Soap plaster..... }

Mix exactly. (The addition of belladonna, opium, or morphine is no advantage, but increases the price.) The "blue plaster" to be spread on soft old linen shortly before it is to be applied. To promote the absorption of syphilitic infiltrations, the formation of skin, healing of excoriations, and non-suppurating tumors, warts, and nodes, in rheumatic and gouty pains, in psoriatic spots, hardened scars, and for wrapping around syphilitic nails, fingers, and toes; for affections (hardened) of scrotum, and to apply to the abdomen in visceral syphilis, involving the liver and spleen, etc.

187. ℞ Ammoniated mercury..... ℥ ss.
Soap plaster..... ℈ ss.

To be mixed exactly, and spread fresh before application. Useful in the treatment of excoriations, syphilitic infiltrations, erosions, and ulcerations.

188. ℞ Red oxide of mercury..... ℥ ss.
Soap plaster..... ℈ ss.

Mix exactly, and to be used in the same class of cases as No. 187.

189. ℞ Carbonate of lead..... ℥ j.
Pulv. starch or lycopodium..... ℈ j.

Mix exactly. A useful powder in intertrigations, syphilitic excoriations on the labia majora, scrotum, ankles, rectum, toes, fingers, etc.; also after the application of corrosive sublimate solutions.

190. ℞ White oxide of zinc in fine powder.... ℥ j.
Starch or lycopodium..... ℥ j.

Mix exactly. Powder especially useful for children in excoriations of the face, behind the ears, on the neck and folds of the skin.

191. ℞ Alum, pulverized..... } āā ℥ j.
Precipitated chalk..... }
Starch or lycopodium..... ℈ j.

Make into fine powder. To be applied to bleeding excoriations and cracks of the skin.

192. ℞ Larkspur seeds powdered..... } aa ℥ j.
Lard..... }

Make into a soft ointment. Used for the destruction of animal parasites in the same manner as mercurial ointment.

193. ℞ Prepared charcoal..... ℥ j.

Tooth-powder, to be used at least three times daily,—morning, noon, and night. Acts nicely on the gums, and may be mixed with some simple aromatic powder, according to the taste of the patient.

194. ℞ Prepared charcoal..... ℥ j.
Pulverized orris root..... ʒ j.

Tooth-powder, similar to No. 193.

195. ℞ Prepared charcoal..... ℥ j.
Prepared chalk..... ʒ j.
Oil of peppermint.....gtts. ij.

Mix in the same manner as No. 193. Serviceable in the treatment of loose gums and excessive secretion of acid saliva. Instead of the oil of peppermint any other aromatic preparation may be substituted.

196. ℞ Pulv. cuttlefish..... ℥ j.
Pulv. orris root..... ʒ j.

Mix exactly. Tooth-powder, similar to No. 193. Will admit of the same additions as mentioned in Nos. 194 and 195.

197. ℞ Pulv. cuttlefish..... ℥ j.
Pulv. alum..... ʒ j.

Tooth-powder; especially indicated in the treatment of flabby, loose, bleeding gums.

198. ℞ Extract of rhatany (or Peruvian bark)..... ʒ j.
Cuttlefish-bone..... ℥ j.

Mix exactly. Tooth-powder, similar to No. 197. It should not be forgotten that all substances containing carmine will leave a deposit on rough surfaces of the teeth if used for any length of time, and therefore discolor and stain them.

PROPHYLACTICS.

Absolute immunity against the contraction of venereal and syphilitic diseases by means of prophylactics is impossible. The favorite mechanical device, the condom, even when impermeable, does not always afford protection. Bathing the genitals and surrounding parts immediately before and after intercourse, with the usual washes, ordinarily affords a certain amount of protection, unless there is an abrasion of the skin; when such is the case, infection occurs rapidly. It is therefore a good plan, whenever practicable, to cauterize as soon as possible every abraded spot, as well as every suspicious-looking papule or vesicle.

DIETETIC COURSES.

The treatment of venereal and syphilitic affections by a course of dieting, such as the whey or milk, wheat bread, or cold water cure, is, as a rule, now only resorted to in very chronic cases. Such dietings exert no immediate result, and are only advantageous as adjuncts in the general treatment pursued under the direction of a skilled physician. The wheat cure, "semmelcar," resembles the "Arabian cure," or "dry diet" (traitement sec.), and is still followed by the inhabitants of North and East Africa. Dried fruits, such as dates and figs, with rice and water, form the entire course of diet. Hot sand-baths are used to promote perspiration during this course of treatment.

MINERAL SPRINGS AND SEA BATHS.*

After the patient suffering from syphilis has passed through a systematic course of treatment, a resort to the mineral springs or sea-baths will undoubtedly prove serviceable in restoring the

* For full information upon this special subject, the reader is referred to Braun's systematic text-book of Balneotherapeutics, 2d Edition, Berlin, 1869. In the choice of a watering-place the tastes, mode of life, and circumstances of the patient should be taken into consideration, and above all, he should only go to places where he is sure of meeting with a skilled physician. The importance of this last injunction, especially in the treatment of venereal diseases, is not over-estimated. There is no doubt that many systematic courses of treatment in syphilis exert beneficial effects when combined with the use of mineral baths, as in HALLE, KREUZNACH, BADEN, etc.

general health. The indications for their use will, of course be manifest to the physician. There is no mineral water that is really a specific for syphilis. Many waters containing iodine and bromine have been reported as such, but when carefully tested by reliable chemical observers, such reports have been proved to be exaggerated statements, with little or no foundation in fact. In the treatment of the complications of venereal and syphilitic patients, especially old cases, the great variety of mineral waters and sea-baths certainly promise to serve as valuable auxiliaries. Whenever the circumstances of the patient will admit of it, and it is otherwise practicable, these extra resources deserve the attention of the physician. The following are the most important:—

a. SPRINGS CONTAINING IODINE AND BROMINE: HALLE, near STEYER (UPPER AUSTRIA); LIPPIK, near TISSEK (SLAVONIA, a warm bath!); CREUZNACH (RHINE PRUSSIA); BASSEN (TRANSYLVANIA); LUHATSCHOWITZ (MORAVIA); in the treatment of scrofula, chronic inflammation of the skin, glands, old ulcers, arthritic cartilage, and bone affections, and metallic poisonings, especially that of mercury.

b. SULPHUR BATHS: BADEN, near VIENNA; TREUTSCHIN, PISTJÁU, OFEN, TEPLITZ, near WARASDIN; MEHADIA, BADEN in SWITZERLAND, AIX LA CHAPELLE, and others; for rheumatism, gout, affections of the joints, cartilage, bone affections, and hydrargyriasis.

c. SIMPLE WARM BATHS: TEPLITZ (BOHEMIA); KRAPINA and TOPUSKO (CROATIA); NEUHAUS, MARKT TUFFER, and RÖMERBAD; TOBELBAD (WURTEMBERG); RAGAZ (SWITZERLAND); WILDBAD (WURTEMBERG); all these resorts enjoy a mild and low situation; while GASTEIN, PLÄERS, and LEUK (SWITZERLAND); AIX (SAVOY) are high, and have a mountainous climate; advantageous in the treatment of anæmia, certain neuroses, and gout.

CLIMATIC HEALTH RESORTS.*

After a patient has pursued a systematic course of treatment

* A systematic course of treatment in syphilis will, under all circumstances, produce the best results when the patient is moving in the better walks of life,

for syphilis, and especially in cases where any complications exist in connection with the disease, there can be no doubt that a resort to some healthful change of country will prove of great benefit. In the selection of the climate, the general indications of the case will afford the means of arriving at a decision. In a majority of cases a southern climate will be most appropriate, especially during the winter season, as the general purpose is to nourish, protect, and strengthen individual organs; mainly the heart and lungs. To be of any benefit a long stay is necessary—at least during a season—the patient to remain, at the same time, under the supervision of a skilful local physician. Special means of cure are often to be had at the ordinary health resorts, such as milk, whey, grape, baths, cold water, etc. Only a small number of those most celebrated are mentioned.

a. In cases of scrofula and anæmia, especially such as are due to debilitating physical or moral causes: MERAU (from September until May), NICE (from the middle of October until March, never later than May), VEVAY and surrounding country as far as VILLENEUVE and BEX (from September to May), ISCHIA, NAPLES, PALERMO, and MESSINA. In NAPLES great care should be shown in the selection of apartments.

b. In tuberculosis, chronic congestion, and catarrh of the lungs: VENICE, MENTONE, CANNES, SAN REMO, CORSICA, and PAU (from October until May), CAIRO (from September until May), SYRIA is suited to patients whose recovery is likely to take much time (from June to August), will answer very well, at least at LEBANON. Regarding MADEIRA, Von Sigmund does not speak authoritatively, since he has been unable to decide from his own observations. The absence of specialists, and the fear of the presence of dysenteric diseases, will doubtless deter many from resorting to MADEIRA when suffering from special diseases.

c. For patients from northern countries where the weather

enabling him to choose a genial climate. The advice so often given, when treating syphilis under unfavorable circumstances, to seek a change of climate is well founded.

is cold, damp, and liable to sudden changes, a dry, moderate, and equable climate should be selected, both during and after a course of treatment for syphilis. An excellent choice is offered in SOUTH AUSTRIA, SOUTH GERMANY, and in SWITZERLAND; MERAU, BOZEN, and GRIES, BADEN (near VIENNA), WIESBADEN, CANSTATT, BADEN BADEN, LAUSANNE, VEVAY, RAGAZ, etc. All the conditions necessary to pursue a careful and judicious course of treatment will be found at these pleasant resorts.

Clinical Contributions.

CASE OF DACTYLITIS SYPHILITICA.

BY EDWARD WIGGLESWORTH, JR., M.D.,

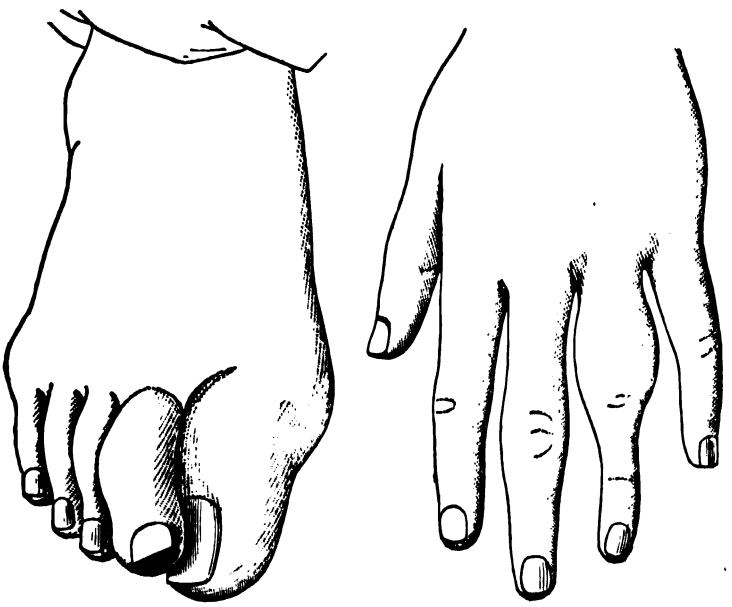
Physician to the Boston Dispensary for Skin Diseases.

SHORTLY after having had the pleasure of reviewing Dr. Taylor's admirable paper on Dactylitis Syphilitica, published in this Journal in January, 1871, I was called in consultation to the following case:—

October 14, 1871. Margaret D——, Irish-American, æt. 18, house-servant. Her mother, dying of phthisis in an adjoining bed, reports her husband as having been "affected at Carrick Fair, in the old country, from a girl he met in the woods." About a year later, he seeming healthy, she married him. The first child was healthy; the second died, aged five years, from "scarlet fever;" the third was still-born; the fourth and fifth were healthy; this girl was the sixth child; the seventh and last is a hunchback "from a fall." The girl reports that at twelve years of age she had four sores inside her right thigh. These healed after seven months, having been treated by setons and ointments. When thirteen years of age she had scarlet fever and jaundice. Comparatively well for a year, when she had sore-throat and hoarseness. The catamenia, which had twice appeared, stopped at this time for four or five months. She has since been "very irregular." She denies the existence at any time of primary lesions. Had "rheumatic fever" during the winter of 1869–70. In January, 1871, had similar pains; also a labial abscess, which yielded, on lancing, a thick gelatinous matter. At this time there were various sores upon her skin. July 15th, '71, she entered the City Hospital. She then had a rupia horn on the upper lid of the left eye, and several sores scattered over the face. Also gummous tumors on her legs, the scars now visible, whitish and depressed. She stayed seventeen days, and took iodide of potassium. She then left, "all well except three sores on her leg, and these nearly well." Subsequently she had two swellings over the middle of the left ulna, and a node on the distal extremity of the left radius, lasting for two months.

Early in September she wounded the scalp by striking it against a nail. The spot ulcerated, and is now covered by a thick tallowy crust as large as a robin's egg. At this time the patient noticed, also, that the great and second toe of the right foot had swelled. At about the same time the first phalanx and joint of the ring-finger of the left hand swelled suddenly,

reaching in a week a size half again as great as that represented in the engraving, she being at that time employed in peeling scalded tomatoes at a pickle factory. About October first a node appeared on the



front of the lower third of the left tibia. The patient is now, October 14th, in bed "expecting to die before her mother, and not wishing to live." Much emaciated; very weak; no appetite; sallow and muddy complexion; headaches, especially towards morning; says previous headaches have been relieved by iodide of potassium. Pains in the tibiæ, especially on pressure upon the node of the left tibia, which is red and slightly elevated .There is a rupia crust on the middle of the right eyebrow. The left knee is swollen and painful on pressure or standing, in and above the articulation. The articular capsule feels thickened, but there are no signs of fluctuation. She sleeps well. Has no cough or pains in her chest. Pulse 65 and weak. Bowels open daily. Amenorrhœa. Micturition normal. No signs of iritis. Reports a cold in right eye last winter, since which the eye has been weak, with some pain in the lids; xanthelasnea of the lower lid. Slight alopecia. Volar and plantar surfaces not affected. The first phalanx and joint of the left ring-finger still somewhat swollen, as represented in the engraving, but the color is normal, and voluntary movement is not lost.

In the great and second toes of the right foot there is mobility only at the metatarso-phalangeal articulation. The great toe is bluish red, swollen, especially at the second phalanx; the integument tense. The second toe, which at present rides up over the great and third toes, is swollen from the middle of the first phalanx to the distal end of the toe, smooth, shining, violaceous in color, the furrows obliterated. No pain on pressure in any direction except slight uneasiness at the joint of the first and second phalanges. Non-elastic and resistant, but does not pit on pressure. Temperature normal. The distending deposit is entirely on the dorsal surface and sides; the tendon can be felt underneath. No crepitation. The ligaments are slightly flaccid on traction, which produces some pain. Firm and prolonged pressure failed to disclose the condition of the joint. The length of the toe is the same as that of the opposite foot. The nails of all the toes are curved. The swelling is symmetrical, but shades off over the first phalanx. The end of the toe is larger above than below. The toe measures in circumference two and three-eighths inches, the corresponding toe of the left foot one and one-eighth inches.

The finger affected measures at present in circumference only two and a half inches, the corresponding finger of the opposite hand one and three-quarter inches. The affected finger is shortened by half an inch. The loss is wholly in the first phalanx, on the distal end of which there may be felt a bony swelling on the ulnar side.

The patient was ordered half an ounce of brandy and five grains of iodide of potassium just before each meal, half an ounce of cod-liver oil and ten drops of the syrup of iodide of iron one hour after each meal, and an ointment composed of equal parts of mercurial ointment and benzoated oxide of zinc ointment was spread on rags and applied to all the sores and nodes, to be changed daily, washing the parts clean with soap and water. The finger and toes affected were bandaged with the same. She was sponged all over and put on a meat diet. The knee was painted with tincture of iodine.

October 16th. Better appetite. Has taken eggs and chewed rare beefsteak. Continue treatment. Apply lard to the crusts on scalp and eyebrow.

October 19th. Feels "much better every way." The crusts, softened by the lard, were washed off with soft soap and warm water, and the ointment applied on rags to the subjacent ulcers. Three slight swellings have appeared on the right leg; one in front, over the inner edge of the tubercle of the tibia; one behind, over the inner line of the junction of the head of the fibula with the tibia; and the third also behind, just above and to the outside of the popliteal space. Tincture of iodine was applied to these, and the ointment already mentioned.

October 23d and 30th. Steady improvement. The brandy has been changed to comp. tinct. gentian, and she now takes seven grains of iodide of potassium thrice daily.

November 7th. Ulcers all healing. Swelling of knee and nodes disappearing. Very good appetite. Up, and about the house.

She continued improving till December 4th. The ointment was changed to pure mercurial ointment November 13th.

December 4th. Patient went to the country for two weeks, continuing treatment. The dose of iodide of potassium had been increased at intervals until on December 11th she was taking fifty-four grains daily. The toes were now smaller and their color fading. The finger also smaller.

January 15th, 1872. The finger was nearly normal in size, so that the patient was wearing rings upon it. No pain in the toes when pulled. The swelling nearly gone. No crepitus or disorganization. Patient feels well, and "every one is passing remarks on her good looks."

January 22d. Patient eloped from home with her lover, who, from the report of the sister of the patient, had "kept company with the patient four or five years ago, at which time he was said to be diseased."

The advantages to be derived from the local application of mercurial ointment are well shown by the rapid improvement in this case.

March 11th. Patient came to the dispensary. Doing well generally. The second toe is completely restored to its normal condition.

A CASE OF VENEREAL DISEASE, PRESENTING SOME ANOMALOUS FEATURES.

BY JOHN H. PACKARD, M.D., OF PHILADELPHIA.

Mr. J., unmarried, æt. 38, was under my care in 1866, for an attack of gonorrhœa, which yielded readily to treatment. He was a man of quite robust frame, in the habit of taking a good deal of exercise, and was then leading a very fast life. Soon after this he reformed entirely, and became a communicant and a vestryman in an Episcopal church.

In May, 1871, he came to me again, in the following condition: Upon the scrotum he had about a dozen deep and foul ulcers, secreting a profuse quantity of rather thin yellow pus. In the perineum, and low down in either groin, were shallower sores, but obviously of the same kind. One deep but small sore existed just over the lower part of the sternum. On the under surface of the penis were three abrasions, each about as large as a nickel cent. All the skin in the neighborhood of these sores was irritated by the profusely flowing pus, which not even scrupulous attention to cleanliness could prevent from caking over it.

Mr. J. told me that these sores had existed in the summer of 1870, but had healed up, only to break out again with the return of warm weather. He seemed otherwise in good condition, except that anxiety and suffering had somewhat worn upon him; he had no eruptions, no nodes, no glandular swellings.

As he was very unwilling to place himself at rest and undergo treatment, I was forced to content myself with making some astringent applications, which, however, failed to produce any perceptible improvement, from the constant friction of his clothes and even of the protective linen which he used within a well-made suspensory.

During the summer he travelled in Canada and elsewhere, still suffering very much; but early in October he again called upon me, and consented to adopt any measures I might advise.

I directed him at once to put himself at entire rest in his room, and to apply a poultice for the purpose of cleaning all the sores out thoroughly. This done, I daily wiped out each excavation with soft bits of linen rag, and applied a lotion of fifty drops of nitric acid to a pint of water. As a dressing, I used a glycerole of chloride of zinc. This proved to be too liquid, flowing over the sound skin and softening it; ointment of the oxide of zinc was therefore substituted for it.

He was placed also on the use of ammonio-citrate of iron, grs. v., in ʒ j. of the elixir of Calisaya bark, thrice daily.

Under this treatment he did well, although for several nights I was obliged to afford him sleep by means of bromide of potassium, the total preclusion of exercise making him restless.

After a few days the oxide of zinc seemed to be too heating, and I changed the dressing to an ointment composed of Ung., Hydr., Ox., Rub., ʒ j., Bals. Peruv., ʒ j., Axung. Benz., ʒ vj.

For the tonic I also substituted, after about ten days, a solution of iodide of potassium in elixir of Calisaya bark, with a small quantity of the syrup of iodide of iron.

He now improved steadily and rapidly, the sores healing from the bottom. About the first week in November, I allowed him to go out, and he soon resumed his business without any inconvenience or detriment. Careful dressing of the ulcers was continued, at first daily, and then at gradually increasing intervals. The shallow sores on the under surface of the penis did not cease to discharge until the scrotal ones were far advanced in healing; and the skin in that region has not yet assumed an entirely normal appearance. A slight incrustation still exists in the perineum, although there seems to be no soreness or moisture there.

At the present time the skin of the scrotum is perfectly sound, two principal cicatrices of irregular form, and several smaller ones, showing the site of the deep and angry ulcers which existed there fifty-three days ago. Twice a day he bathes the parts thoroughly with a weak solution of alum in water, and he wears a linen suspensory to prevent friction in walking or sitting.

I must confess that this case presented some features which to my mind are difficult to explain. If it was syphilitic, why was then no constitutional involvement,—no glandular pleiad, no sore throat, eruption, or other evi-

dence of absorption? If chancroidal merely, why did it heal up in the autumn of 1870, to break out again more severely with the warm weather in 1871?—why did it prove so little amenable to local treatment, but seem to yield soon so to the iodide of potassium?—why was there no suppurating bubo?

If it was a mixed case,—the sores on the under surface of the penis, which however, were multiple, being true chancres, and those on the scrotum and elsewhere merely chancroids,—why did there still occur no constitutional manifestation of disease?

Perhaps I should say that I could not obtain from my patient any decided statement as to his exposures. He did not deny that he had been exposed, but he would not admit that he had knowledge of any such occasion; so that I could not but infer that the origin of the complaint was some irregularity committed by him, probably in the spring of 1870.

Reviews.

THE DIAGNOSIS OF SYPHILIS BY THE MICROSCOPIC EXAMINATION OF THE BLOOD.

In the *Medical Times and Gazette*, London, January 27, 1872, appears an account of the recent discovery of a peculiar corpuscle in syphilitic blood, which is claimed to be characteristic of syphilis.

"At the last meeting of the Vienna Medical Society, Dr. Lostorfer read a paper containing the results of investigations into the nature of the microscopic appearance of the blood of syphilitic patients. The researches have been continued several months in Professor Stricker's laboratory, and, as will be seen, confirmed by no less an authority than that of Hebra, and if further confirmed they will, beyond any doubt, be one of the most important discoveries for practical medicine.

"During the last few years several attempts have been made at explaining different diseases, and particularly infectious ones, by the presence of fungous growths in the blood, secretions, and excretions, as well as in the tissues of the human and animal body. In syphilis it was particularly the patients' blood which has been searched for organisms of a lower range. The results of these investigations, however, have been negative, with the single exception of Hallier, who describes a fungus, found in different infectious diseases, of that nature which has been called "micrococcus" by the same author. The micrococcus *per se* is not characteristic of any disease, but becomes so—according to Hallier's opinion—in the species produced by artificial cultivation. One of the greatest micrologists (De Bary) has objected in a most emphatic manner to Hallier's method of cultivation —so that it has been abandoned by almost all workers in that direction.

"Dr. Lostorfer thinks that the negative results of blood investigation have been due to two causes, namely: 1. Hitherto nearly all researches have been made with too low powers; he is convinced that such investigations cannot be made with a less magnifying power than with Hartnack's eyepiece No. 3, and the immersion lens No. 10. 2. All researches have been made with fresh blood, and the objects soon spoiled by an unfavorable method of preservation. The opinion has, unfortunately, always been prevalent, that what is to be seen in blood must be seen best in fresh blood, but it has been overlooked that things may be so minute as not to be viewed at first, but that they may grow to a visible size.

"Under these considerations, Dr. Lostorfer commenced his researches in August, 1871, in Professor Zeissl's wards for syphilis. The method observed was excessively simple. A small drop of blood taken from a syphilitic patient was put as quickly as possible on a clean object glass, covered, the whole object conveyed to an exsiccatorium, arranged in a kind of Recklinghausen's moist camera, and daily carefully examined with the magnifying powers mentioned above. The result of the first four objects was

already positive, and remained so afterwards in large numbers of objects, the blood having been taken from different patients suffering from various, yet unmistakable, forms of syphilis.

"During the first two days of investigation nothing could be seen except vibriones, bacteria, and commencing forms of sarcina. In the third or fourth day, however, and, in exceptional cases, after the lapse of twenty-four hours, minute bright corpuscles became visible, some of which remained immovable, whilst others continued in a state of undulation. Some of these bodies exhibited a projection. On the fourth day (exceptionally on the third, fifth, or sixth day) the corpuscles were enlarged in bulk and in numbers. Of those enlarged, the majority had the projections just named, which were undoubtedly a kind of sprouts, which in some cases were larger in size than the corpuscle itself. In the following days the growing continued, so that some of these bodies became as big as, and even bigger than, red blood-corpuscles. Besides these, there were numbers of smaller corpuscles visible, growing and sprouting, some exhibiting one projection, others three or more projections; the latter were sessile, or had a minute pedicle. The corpuscles were by no means all globular, but of different irregular shapes. After eight or ten days a vacuola was formed in the larger corpuscles, which extended over the whole corpuscle, and terminated the further development of the growth. Different fluids, as sugar, Pasteur's liquid, common salt, acetic acid, etc., were not able to arrest the shrivelling of the bodies and further retrograde development.

"Concerning the number of corpuscles, it varies greatly in different cases. Whether this be dependent upon the different stage of the disease, cannot yet be said, and must be reserved for further investigation. Dr. Lostorfer has treated in a similar manner the blood of patients laboring under gonorrhœa, diphtheria, eczema, typhus, elephantiasis, and lupus, but never found anything to be compared with the appearance of syphilitic blood. Dr. Lostorfer is cautious enough not to give any opinion as to the relation of the "syphilis corpuscles," as he calls them, to the disease; whether they be the cause or the result of the latter he pretends not to know, but contents himself to state the facts he has found. After having alluded to a number of patients (and their histories) from whom he had procured blood for examination, he winds up with the statement that he is able in any case to form the diagnosis of syphilis by examining the blood microscopically.

"After the paper was read, and received with great applause and encomiums by Skoda and Hebra, Professor Stricker confirmed, in addition, that the author of the paper had been tried seven times, viz., five times by Stricker, and twice by Hebra—in the following manner: In the first trial, twelve objects, numbered and registered, were given to Dr. Lostorfer; two (Nos. 8 and 9) were taken from healthy persons, the other ten from three patients suffering from different forms of syphilis. After a few days, Dr. Lostorfer responded: "Nos. 8 and 9 healthy, two objects spoiled, the rest syphilitic." Second trial, made with seven objects—"Nos. 1 and 3 syphilitic, the rest healthy." Third trial, with nine objects—"Nos. 3, 5, and 8 syphilitic, the rest healthy." In both trials, after four days the healthy objects were picked out from the syphilitic ones, with the exception of the two objects which were spoiled. Fourth trial, with twelve objects—four syphilitic, and eight healthy. (The objects by some accident having been exposed to a temperature of 12·15° C., previous to their deliverance to Dr. Lostorfer, the latter replied that "Nothing abnormal could be detected.") Fifth trial, with four healthy and three syphilitic objects. The reply was corresponding to the registration made by Professor Hebra and kept him-

self secretly. In the sixth trial one syphilitic object was given, and five healthy; in the seventh, two syphilitic and four healthy; and in both cases recognized accordingly."

Dr. Lionel S. Beale, of London, announced, in 1863, his discovery of living animal disease germs in fresh vaccine lymph, with the declaration that its active properties, he believed, were entirely and solely due to these germs. They were described as consisting of extremely minute particles of bioplasm or germinal matter, readily seen under a microscopic power of from one to two thousand diameters; "and," says Beale, "I think they consist of a peculiar kind of living germinal matter, the smallest particle of which, when supplied with its proper pabulum, will grow and multiply, giving rise to millions of little particles like itself, each having similar properties and powers."*

M. Chauveau, of Paris, in 1868, verified Dr. Beale's discovery, and showed that the active particles in the vaccine lymph subsided after forty-eight hours, and that no effects were produced by inoculating the albuminous supernatant fluid, while the full effects were produced by vaccinating with the deposit. Like disease germs were shown to exist in the variolous virus, and in 1866 Beale announced their presence in the fluids of animals affected with the cattle plague, and *claimed a similar source of origin for syphilitic disease.*

In regard to the nature of the disease germ of contagious diseases, Beale says, that "it is a molecule of germinal matter, derived by direct descent from the living matter of man's organism—living matter which retains its life after the death of the organism in which it was produced—living matter which has descended from the living matter of health, but which has acquired the property of retaining its life under new conditions—living matter destroyed with difficulty, and possessing such wonderful energy that it will grow and multiply when removed from the seat of its development and transferred to another situation, provided only that it be supplied with suitable nutrient pabulum."

It will be observed that the description of the disease germ of Beale and Chauveau is equally applicable to the syphilitic corpuscle of Dr. Lostorfer. That this *corpuscle* is an *amœboid cell*, "*retaining its life after the death of the organism in which it was produced, growing and multiplying when removed from the seat of its development and transferred to another situation.*" *Proliferating, like the white corpuscle of the blood* (and like all animal germinal matter), *by fission.*

* Disease Germs—their Real Nature, p. 61. Lionel S. Beale, London, 1870.

Dr. Beale's disease germ was seen as a minute particle under a high microscopic power not capable of being distinguished from any other germinal matter, but its capacity for development was recognized and asserted.

Dr. Lostorfer has taken up the investigation of the development of the syphilitic disease germ where, by inference, Dr. Beale left it. He has pursued his observations until, through the natural growth of the disease germ, *outside the body*, it has come to be appreciable (under a comparatively low magnifying power) by distinct and well defined characteristics.

In my lectures at the College of Physicians and Surgeons, on the Physiology of Syphilitic Infection, in 1870, and also, in an article on the same subject, published in THE AMERICAN JOURNAL OF SYPHILOGRAPHY AND DERMATOLOGY of July, 1871 (2d Vol. No. 3. Page 229), I claimed that it was "the *germinal* element of the blood and tissues *alone* that is primarily affected in syphilitic disease, and that it is through the *lymphatic system alone* that the syphilitic influence is propagated to parts remote from the point of inoculation. That it is not a *virus*, as ordinarily conceived, that constitutes the syphilitic influence, but *a living, abnormally active bioplast*, developing, multiplying, by appropriating as its pabulum the healthy bioplasm which goes to regenerate the fluids and solids of the healthy human organism; and hence, *formed material* cannot afford the proper pabulum for its nutrition. *Unformed* germinal matter *alone* can appropriate it, or be appropriated by, and combine with it. Not the *tissues* nor the *red blood-corpuscles, which are formed matter*, but the *germinal* element of the blood and tissues *alone*, are affected by its power or influence, which would appear to be but to unduly stimulate and accelerate the normal processes of nutrition and development of the germinal element of the blood and tissues."

In elaborating *the theory of syphilitic infection through the lymphatic system alone*, the *disease germ* of Beale was accepted, as capable of fulfilling *most* completely the necessary requirements of a syphilitic infection in accordance with known physiological and pathological processes.

The alleged discovery of Dr. Lostorfer verified and supported by Profs. Hebra and Stricker, warrants the sanguine expectation that it will prove to be of great value not alone in the diagnosis of syphilis, but in the explanation and settlement of many vexed questions appertaining to the disease. A demonstration of the syphilitic corpuscle, it appears to me, must be accepted as a step towards a confirmation of the views I have advanced in regard to the physiology of syphilitic infection.

FESSENDEN N. OTIS, M.D.

THE RECENT LITERATURE OF VACCINAL SYPHILIS.*

(FIRST NOTICE).

THE record of clinical facts bearing upon the vexed question of vaccinal syphilis has, during the past year, received a notable addition in the announcement by Mr. Jonathan Hutchinson, of two series of cases in which, as he supposes, syphilis was conveyed in vaccination; whilst, on the other hand, the theoretical objections against the possibility of conveying syphilis in vaccination, *provided pure unmixed lymph be used*, which objections, whenever confronted with the ever-increasing array of clinical facts, have generally been preserved from utter annihilation only by the interposition of Viennois' ingenious and well-known blood-inoculation theory, have, by the observations of Köbner, Rahmer, and others, been divested of a great deal of their practical value by the prominence which has now at length been justly given to certain circumstances which may determine the conveyance of syphilis in vaccination, apart from blood-inoculation.

Mr. Hutchinson's cases (reported by him to the Royal Medical and Chirurgical Society, on April 25th and May 9th, 1871) include two series—one set having occurred in the practice of an anonymous practitioner, and which, coming to the knowledge of Dr. Seaton, were at his request investigated by Mr. Hutchinson; the other set being reported by Mr. Waren Tay.

As regards the first series, the facts reported are, briefly, these:—In February, 1871, thirteen adult persons were vaccinated from an infant four months old. This child was apparently healthy at the time of the vaccinations, but subsequently it was found to present condylomata about the anus. Its vaccinial cicatrices were normal, showing that its syphilis antedated its vaccination. It finally fell into a condition of marasmus, with commencing hydrocephalus. Close examination failed to reveal any sign of syphilis in its mother, but she declined to indicate the whereabouts of its father, a National Guardsman of Paris, whom Mr. Hutchinson therefore considered as desirous of avoiding an examination.

The vaccinated persons did not present themselves for inspection at the proper time, but, as far as could be subsequently ascertained, the pocks had shown a normal evolution, the crusts falling off at the end of the third week. Two of these persons entirely escaped syphilitic contamination. These two had been

[1] Proceedings of the Royal Medical and Chirurgical Society, as given in the *British Medical Journal*, April 29, 1871, p. 448, with editorial remarks upon the same in that and the other weekly medical journals of London, *passim*.

vaccinated with the lymph first taken from the vaccinifer, and the fact of their escape gives color to Mr. Hutchinson's supposition that the remaining individuals were syphilized in consequence of admixture of the vaccinifer's blood with the lymph. Of these eleven persons, at the end of a fortnight from the falling of the crusts (five weeks after the vaccination), the greater part showed sores at the points of insertion. When examined, two months after the vaccination, indurated sores were found at some, not all, of the cicatrices. Some of these patients had suffered from transient roseola and a few lichenous spots, but in none of them was there any lasting skin or throat lesion. Mr. Hutchinson imputed their freedom from marked secondary manifestations to the fact of his having treated them all with mercury, together with the local application of black wash. This explanation does not seem to have proved satisfactory to all the members of the Society, and further observation of the cases was decided upon, a committee being appointed to report thereon.

In the discussion which followed, Dr. Bakewell made a most important suggestion, namely, that syphilis might be communicated in vaccination by a transfer of epidermal scales upon the lancet as well as by admixture of the vaccinifer's blood. Mr. Henry Lee characterized this idea as novel and well worthy of attention. It is somewhat surprising that Mr. Lee should have adduced (apparently as a *novelty*) Rayer's well-known experiment of inoculating vaccinia and small-pox, respectively, upon separate persons from a subject simultaneously affected with both. Perhaps, however, the reporter did him scant justice.

In the second series of cases—those of Mr. Tay—the vaccinifer was an infant, seven months old, who, according to its mother, had been chosen from among several available children, on account of its fine healthy appearance. Its vaccinia had followed a regular course, and, at the time of Mr. Hutchinson's examination, the pocks were well cicatrized. At this time its head was rather large, the anterior fontanelle not having yet closed, and by the side of the anus there was a small condyloma.

From this child, two children, aged respectively fourteen months and four years, were vaccinated. Twelve weeks subsequently, they came under the care of Mr. Tay, the pocks not being yet healed. In the elder child, one, and in the younger all three, of the ulcers were indurated. In both, the axillary ganglia were engorged, and the upper and lower extremities presented a papular eruption, which had first appeared at the end of a fortnight after the vaccination.

The *Medical Times and Gazette* represents that the committee confirmed the diagnosis of syphilis in both these series of cases, whereas the *Lancet* contends that this is true only in regard to Mr. Tay's cases, and questions the accuracy of Mr. Hutchinson's diagnosis.

These cases do not affect the question (of strictly scientific interest) as to the communicability of syphilis by the use of *pure, unmixed* vaccine lymph, but, apart from the great weight of Mr. Hutchinson's name, the intrinsic evidence fairly proves the conveyance of syphilis in vaccination, and amply justifies the editorial writer in the *Medical Times and Gazette* in insisting upon the right of the community to the option of animal or humanized virus. "No one," says this writer, "who knows what syphilis is, and how it impresses its stamp upon a whole lifetime, will say that such a demand is unreasonable."

FRANK P. FOSTER, M.D.

NEUMANN ON SKIN-DISEASES.*

DISEASES of the skin have been so carefully studied in Germany, and German observers have made such material progress in the simplification of their classification, and in the study of their pathology and treatment, that any observations coming from them are deserving of especial attention. Among the most prominent and able of these observers is Dr. Neumann, whose text-book upon skin-diseases has, in two years, reached a second large edition in Germany, and of it two translations have been made, one in England and one in America. The extraordinary success of Dr. Neumann's hand-book in Germany might, at first, appear singular to American physicians; but when it is considered that very much attention is devoted in Germany to the study of skin-diseases, and to their pathological histology, it can be readily understood, that a work which combines nearly all of the existing knowledge of the pathological histology of skin-diseases should be in great demand. On carefully reading Dr. Neumann's hand-book it becomes

* Lehrbuch der Hautkrankheiten. Von Isidor Neumann. Zweite vermehrte Auflage. Wien: 1870. Wilhelm Braumüller.

Text-Book of Skin Diseases. By Isidor Neumann. Translated from the second German edition, by special permission of the author, by Alfred Pullar, M.D. London: Robert Hardwicke. 1871.

Hand-Book of Skin-Diseases. By Isidor Neumann. Translated from the second German edition, with notes, by Lucius D. Bulkley, M.D. New York: D. Appleton & Co. 1872.

evident that its author's chief aim was to produce a compendium of the pathology of the skin, and from a survey of the short and desultory manner in which the subjects of clinical history, diagnosis, and treatment are described, we are warranted in assuming that these latter branches of dermatology were only introduced in order to attain a *quasi* completeness for the work. The want of thorough and systematic description of skin-diseases and of their treatment, in Dr. Neumann's book, does not and could not operate against its usefulness in Germany, where it answers the purpose of a *vade mecum* to the student, while attending lectures in which these features are so fully and elaborately taught, and of a book of reference to the practitioner who is already thoroughly grounded in the rudiments of dermatology; but in this country its sphere of usefulness is as yet limited, and it cannot be put forward as supplying our present want. While recently reviewing, in these pages, the admirable treatise on skin-diseases by Dr. Tilbury Fox, we called attention to the fact, that our present want is, for a work treating fully of the clinical history, diagnosis, and treatment of skin-diseases, and we then showed, we think, that in the main this want was better supplied by Fox's manual than by any other work with which we are familiar. It becomes our duty now to examine into the various features and merits of the two English translations of Neumann's work, and to endeavor to decide as to their usefulness to American physicians. Dr. Pullar's translation is brought out with the special permission and aid of its author, and is embellished with illustrations from casts of the original cuts, which are fully equal, in their execution, to the originals. In a very modest preface Dr. Pullar states that he simply wished to render the exact meaning of the original work, and we think that, in general, he has executed his task well. Dr. Bulkley, in his preface to his translation, states that he has endeavored to increase the usefulness of the work, by means of notes of a practical character, which, besides giving a comprehensive view of many doctrinal points in dermatology, also contain many hints as to treatment, and he states that his views are at variance with those of Dr. Neumann, in the matter of attributing the greatest value to external remedies in treatment. We shall, then, have to consider the work of both author and translator. In forming a general estimate of the value of the notes, we may say that after a careful perusal of them, as well as of those portions of the text which they are supposed to elucidate, we think that they are in many instances desultory, in many others superfluous, and that we cannot possibly see that they have at

all enhanced the value of the work as a practical hand-book for students and practitioners. When it is considered that the scope of the original work was mainly that of a hand-book, treating of the pathological histology of skin-diseases, it is readily seen that it cannot be converted by a translator into a practical hand-book, unless he subjects it to such a thorough reconstruction that the features of the original are almost wholly lost; and that if he does not do this, but merely adds annotations here and there, the result is wholly unsatisfactory to the readers. It is true that in the notes we find the views of nearly all the great authorities upon matters of treatment, but as their views are only briefly stated, and as there is no commentary pointing out the advantages of these modes of treatment over those of the author, or wherein they may be useful and those of the author inapplicable, they are, in the majority of instances, a detriment rather than of value, as they leave the reader in hesitancy and doubt, and wholly unable, in many cases, to reconcile the discrepancies. What is wanted is clear, methodical, and practical information as to how to use the few remedies recommended by the author, and not a long succession of formulæ which have been found useful by many authors.

While, then, in the main, we think that Dr. Bulkley's notes upon treatment do not enhance the value of Dr. Neumann's work, we think that his notes upon disputed points in dermatology are, in a work which aims to be practical, quite out of place, as they in the end only treat of doctrines, and are of no value in practice. The very great, even imperative want or deficiency of the book for general American readers, is that of clinical history, diagnosis, and description of the diseases, and this has been left wholly untouched by Dr. Bulkley. With these general remarks upon the scope of Dr. Bulkley's translation, we shall proceed to review Dr. Neumann's work.

After an introduction treating of the various authors and works on dermatology, we come to a chapter upon the minute anatomy of the skin, which is well written and well illustrated. This is followed by sections upon elementary lesions, diagnosis, etiology, and therapeutics, which we are sorry to find are rather too short and general in their character. The subject of classification occupies fully eleven pages, in which the classification of every prominent author from Mercurialis to Hebra are given; then follows Dr. Neumann's own classification, which is a modification of Hebra's, and is introduced in the second edition for the first time. The author urges its simplicity as a claim for its value, but for practical purposes we can scarcely admit that it is better than that of his great master. As this classification

has been already presented to the readers of this journal, we do not introduce it here. Under the general title of anomalies of secretion we find the various disorders of the sebaceous and sweat glands described. Of the sebaceous secretion, we have descriptions of the disorders resulting from increase, accumulation, and diminution of sebum. These diseases are not as fully treated of as their frequency and importance demands, and we would call attention in particular to the want of an extended description of seborrhœa sicca. We are somewhat surprised to find that vitiligoidea is passed over so hurriedly by Dr. Neumann, and that he has not availed himself of the observations of English and Continental observers upon this disease. He classes it, following Hebra, as a disease of the sebaceous follicles, but gives no views of his own, whereas Pavy some years ago demonstrated that it was a trouble due to connective-tissue proliferation, and not associated with the sebaceous glands. Pavy's observations have within a few years been confirmed by Professor Waldeyer in Breslau, who has demonstrated that about the eyelids there exist connective-tissue cells with peculiar yellow nuclei, and that this disease is due to a proliferation of these cells. We can hardly understand why Dr. Bulkley says that this disease is an epithelial hypertrophy, as we know of no views or observations to support it. We also see that he is not familiar with, or at least fails to mention, the admirable clinical study of this disease recently published by Mr. Jonathan Hutchinson, of London. Among the inflammations of the skin we find that the exanthemata are classed, and we are sorry that such a disproportionate amount of space is accorded to them, as there are other diseases which in their description are proportionately curtailed. Thus the clinical history of that all-important disease eczema is not, on the whloe, satisfactorily described. Its various stages and polymorphous features are not treated of with that minuteness which their diagnostic importance calls for, and the same may be said of the directions given for treatment. It is true that we have a list of remedies to be employed, but we are not told how or when they are to be applied. There is so much real art in the treatment of eczema, that we are sorry to find it not well treated of in this book. We fail to find the indications for soothing remedies, or when to use stimulating remedies; which stimulants to use, for how long a time, and with what remedy to alternate them. In fact, this subject, which of all others is the most important, does not receive one-half the care it should. The cardinal reason why treatment is so scantily described, is that the various clinical features of the disease are not fully and accurately drawn out. As the

clinical features of eczema are the sole indices for the mode of treatment which is to be pursued, it is readily seen that it is absolutely necessary to thoroughly describe these features, for then the indications for treatment can be intelligently and fully given. Dr. Bulkley's notes upon eczema and its treatment are perhaps the most unsatisfactory portion of his task, for he fails in any way to assist the reader to any better idea of the clinical history of the disease and its treatment. He gives him numerous remedies, but fails to state *when* and *how* to use them. The case taken from his father's note-book is certainly out of place in a handbook, and does not repay its perusal. In fact, we can only regard this interpolation of commonplace cures from his father's note-book as a great indignity to the author of the work, as they have no value, and only swell the number of pages. Acne is described at some length and, in the main well, and the treatment, as described by Neumann, is good. Psoriasis is classed among the inflammations of the skin, and as far as its pathological anatomy is concerned is admirably treated of. We find that Neumann is disposed to describe and class pityriasis rubra as a scaling variety of eczema, and not to accord to it, as does Hebra, a separate description. Though its discharge feature is absent, its pathology is that of eczema, and should be classed as a variety of that disease.

Following Hebra, Neumann, while he considers and classes all forms of lichen previously described by authors as varieties of eczema, admits and describes two varieties, lichen scrofulosorum and lichen ruber. These diseases are well described, and their pathological anatomy is clearly illustrated. In his annotations to this section of the work Dr. Bulkley adds a variety of synonyms, which are in fact those of various forms of eczema, and in a note states that he has seen a papular eruption which he cannot regard as eczema, therefore it must be lichen. So he admits lichen as a disease, and goes on to describe the forms admitted by older writers. Now we think that this is taking an unpardonable liberty with Dr. Neumann's book, as one of the strong points of it, in keeping with the teaching of the German school, is the admission of the polymorphous origin and course of eczema, and the effect upon the mind of a reader not thoroughly versed in a knowledge of the disease, and of the opinions entertained regarding it, will be, to say the least, confusing.

That interesting class of diseases caused by hypertrophies of the normal structures of the skin receive considerable attention, though we think that ichthyosis and scleroderma, the latter especially, are deserving of description at greater length than we find. One of the strong points in the work, and treating of

a subject hitherto nearly untouched in dermatology, is that relating to the senile alterations in the skin. This condition receives considerable attention from the author, and is illustrated by several drawings. The section on new formations includes the various forms of lupus, the syphilides, elephantiasis Græcorum, keloid, fibroma molluscum, teleangiectasia, papillary tumors, adenoma, sarcoma, and carcinoma. The portion treating on lupus is well done, especially that treating of the pathology; but the description of the syphilides is very meagre and scant, a fact which is more apparent when we find considerable space devoted to the consideration of the doctrine of unicism and dualism of syphilitic sores, and to the histology of the soft sore. We can hardly regard these subjects as relevant with the scope of the book. We are thunderstruck at the puerile note appended by the translator upon the treatment of syphilis. He recommends the mixed treatment, on the authority of his own and his father's experience. We should have been no more surprised if he had stated the fact, imagining it to be original, that he had found that quinine was useful in intermittent fever; for the mixed treatment in syphilis is now one of the standard remedies, fully described in all recent textbooks and recommended by all lecturers upon syphilis and diseases of the skin, and is one of the stereotyped formulæ of many of our hospitals and dispensaries. The pigmentary anomalies of the skin are in the main well described, and the same may be said of the neuroses; but in the section upon parasitic diseases we are sorry to find so much attention devoted to strictly doctrinal points, and that the clinical history of these diseases, which it is so essential should be thoroughly described, are passed over in a very unsatisfactory manner. We fully appreciate the able researches of Dr. Neumann upon the cultivation of fungi, and are glad to have his views, but still we are sorry that he has nearly overlooked the clinical features of diseases produced on man by these parasites. From what we have said it will be apparent that Dr. Neumann's book has a scope and field of its own, which no other work supplies. Taken as a hand-book upon the pathological anatomy of the skin, it has no rival, although we think it may be increased in value by the addition or fuller consideration of the observations of other authors. It is also valuable as containing the description of various rare and peculiar forms of skin-diseases which are not described elsewhere. In fact, it is a very useful book to study or consult after the perusal of another which treats more fully of clinical history and treatment, or while attending a course of lectures in which these subjects are fully dwelt upon; and to put it

forward as a complete hand-book of skin-diseases would be simply to stultify ourselves as to its real value. The addition of the notes does not remedy the matter in the least, for, as we have said before, many of them are irrelevant, and none of them have the clear and precisely practical character which explanatory notes should have. Indeed, we think that notes should always be added very sparingly, and we are opposed on principle to such wholesale mutilation of foreign books as we have recently seen committed in this country. Dr. Bulkley's translation is well done, and we detect very little of the peculiar German construction of sentences which are so prone to creep in translations, and we are sorry that he did not confine himself to translation strictly, as in that his measure of success is very great. It is to be regretted that the illustrations in his book are coarsely and harshly done, as the other mechanical features of the work are highly creditable. We are somewhat surprised at the anomalous position of the note upon vaccination by Dr. F. P. Foster, but as it is so practical in character, and emanates from such good authority, we suppose it may be of benefit to the readers.

R. W. Taylor, M.D.

Selections from Foreign Journals.

RINGWORM IN SCHOOLS.

By TILBURY FOX, M.D., Lond., F.R.C.P.,

Physician to the Department for Diseases of the Skin, at University College Hospital.

Troublesome and disappointing as the management of ringworm in ordinary practice is, it is infinitely more so in schools and public institutions. The consequences of error in the latter cases are, in some points, of much more serious account. A mistake, for example, in deciding when complete recovery is established is not only most injurious to the reputation of the practitioner, and of course disappointing to parents, but cruel to the principal of the school concerned, whom it involves in great annoyance, and sometimes serious pecuniary loss. I see a constantly increasing number of cases of ringworm in children at school, and, I must add, many instances of relapsed disease among them. One of the chief questions upon which a decision, however, is requested is the fitness or unfitness of those who are supposed to be convalescent to go back to school, and to remingle with their playmates. This is a signally important matter in the case of those who are to be returned to schools in which the young are very closely associated, and emphatically so in regard to public institutions of a charitable nature.

The whole question of ringworm in public institutions has recently been prominently forced upon my attention in the case of a remarkable outbreak of the disease, comprising some three hundred cases in all, in a public institution near London, which epidemic I was requested a few weeks since to investigate and report upon. With the facts fresh in my mind, I shall, perhaps, be doing good service to my readers if I discuss briefly the general subject of ringworm in schools, under the heads—

1. Its origin and dissemination.

2. The treatment of the disease when introduced, as regards (*a*) the actually diseased; (*b*) the surroundings and belongings of the attacked.

3. The preventive treatment as regards (*a*) re-importation through the apparently convalescent; (*b*) rekindling from other causes.

I.—ORIGIN AND DISSEMINATION.

Origin.—Firstly, I do not understand that a school is properly managed unless every child admitted is shown to be free from ringworm of the head (tinea tonsurans) and ringworm of the body (tinea circinata), either as certified by a medical practitioner, or by a careful examination at the time of admission by some competent person. A matron or good nurse can have no difficulty in preventing the introduction of ringworm as the rule. Every child with the ringworm (tinea tonsurans) has certain "scurfy patches" or spots where the hair looks shrivelled or unhealthy. Such appearances and red scurfy patches on the body are readily detected by any one who has a pair of eyes, and they should suffice to excite suspicion and to lead to medical examination. Secondly, every week at least, a careful examination of heads should be made in schools. The heads of girls should especially be searched on account of their long hair. In this way the earliest signs of disease must be detected. Ringworm of the body should be recognized more decidedly than it is as the frequent source of ringworm of the head, and dealt with accordingly.

Dissemination.—Well, once introduced into schools, how is ringworm spread? (*a*) By neglect, of course; (*b*) by actual contact of the healthy with the diseased; (*c*) by the common use of towels and brushes by the diseased and healthy; (*d*) by the air of the institution, which, under certain circumstances, is loaded with the germs of the fungus — trichophyton tonsurans. I want specially to notice the last point. When I came to collect the dust deposited from the air in the wards of the institution in which the outbreak of ringworm before referred to occurred, I found that it contained fungus elements in abundance. This observation I believe to be a novel one. The achorion has been detected in the air passing over children affected with favus, I know; but I speak of the existence of the trichophyton in the air when no artificial means have been adopted to disseminate it there.

FIG. 1.

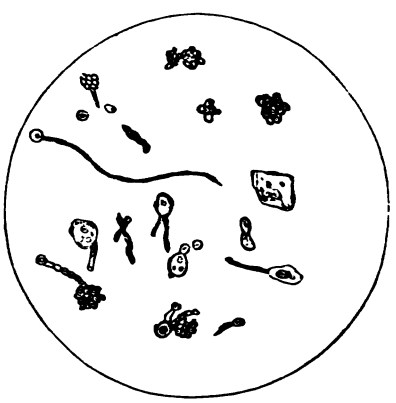
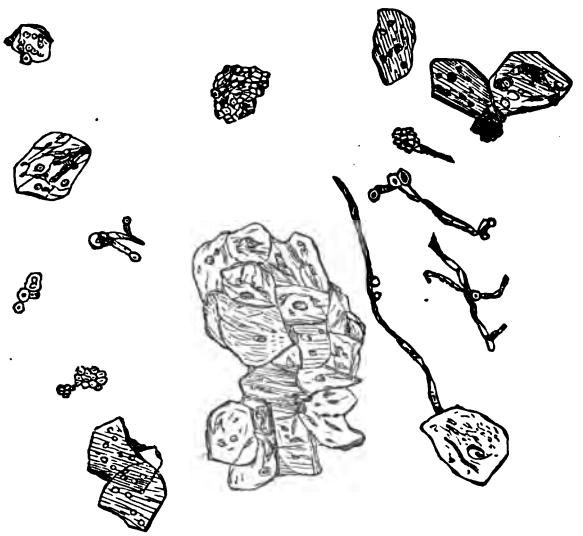


Fig. 1 gives the appearance seen with a one-fifth inch object-

glass at four P.M., in the dust which had collected upon it between that time on a certain day and the evening before. Fig. 2 shows the fungus developing into mycelium two days subsequently. I need not say care was taken to avoid all fallacies. It will be noticed that epithelial scales were found in the dust. No doubt the scratching of diseased places practised by the pa-

FIG. 2.



tients explains the presence of those several elements in the dust. I presume it was the fact of so many children being diseased—I saw 121 together at the time of my visit—at one and the same time that gave rise to such a plentiful supply of fungus; for I imagine that we should have a difficulty in detecting the fungus in the dust of a room where a few cases of ringworm only were present.

I cannot doubt that where ringworm of the body (tinea circinata) only is present, particles of cuticle and fungus may be thrown off by scratching, and so give rise, by the development of germs which fall on the head, to tinea tonsurans. In all cases, therefore, we must endeavor to neutralize the causes of dissemination, to particularly enforce the isolation of the infected, *including those who suffer only from ringworm of the body*, and to disinfect the air where there is reason to think fungus germs exist in it.

II.—TREATMENT.

(*a*) *As regards the actually diseased.*—Isolation at all hazards is the first thing to do. I will only say on this point that cases of ringworm of the body must be isolated. I think this of essential importance in case of schools. It is not, however, thought of any moment as the rule. Where a number of cases occur, it is best to separate instances of very bad and extensive diseases again from slight *new* cases and convalescents, for the simple reason that active treatment may at once annihilate the disease in the former, and in the new cases and convalescents fresh implantations over the, in the main, healthy area of the scalp may be taking place from contact with bad cases of tinea. I would, of course, only adopt this plan where the cases of disease are very numerous—say thirty, forty, and fifty, or more.

There are, next, certainly general considerations to be taken account of. Attention to the dietary is one; for the under-fed, and ill-nourished, and ill-kept furnish the most appropriate nidus for ringworm. All deficiency in meat should be rectified, and in case the attacked or the non-infected look sickly or pallid, the allowance of meat and fresh vegetables should be increased and supplemented by iron and cod-liver oil. So, again, the cubic space allotted to each child should be ample, ventilation free, and cleanliness enforced with exceptional strictness. One word more as regards the general health of children. If, with a rigorous system of inspection in constant operation, many cases rapidly appear, and, in spite of hygienic measures, spread, the children furnish clearly a very suitable soil, and the dietary of the children should be looked to. If ringworm becomes epidemic, with a *bad system of inspection*, it implies simply neglect, of course. Here isolation is the main thing needed to protect the healthy, and not feeding up.

The treatment must be very briefly referred to. In all cases in schools the hair should be cut short, close to the scalp. Recent cases are at once checked, and often cured, by simple blistering. The disease, not having reached the bottom of the hair-follicles, is at once accessible to remedies. Cases of ringworm may be dealt with in the same way. The use of strong acetic acid is, perhaps, as good as the blistering fluid. If the case is not very recent, epilation of diseased hairs, after the Paris fashion, should be practised. It is generally "too much trouble to do this." I next enforce the use, every few days, of Coster's paste, to the extent of some five or six applications, and the subsequent use, night and morning, of some parasiticide ointment, diluted citrine ointment, or sulphur, creasote, and ammonio-chloride of mercury. The head should be washed each day and well

greased. The latter prevents the escape and dissemination of fungus germs. If preferred, the head may be kept soaked in diluted sulphurous acid; of course a proper cap of silk should be worn.

(*b*) *As regards the surroundings and belongings of the attacked.*—It is scarcely necessary to do more than refer to the necessity of thoroughly cleansing the brushes, combs, and towels of the diseased, and seeing that these are not used in common by the healthy and the infected.

Towels should be well boiled. To one novel point I must direct special attention. It is the disinfection of the air of the wards in which a large number of cases of ringworm have been. My recent observations show that the fungus germs are floating in the air, and though I had, until lately, no experience to go upon, because the observation is a novel one, yet I have no hesitation in saying that the air of the wards should be disinfected by burning sulphur if, after complete isolation has been practised where many cases of ringworm have occurred, other instances of disease still continue to appear amongst the previously healthy.

III.—THE PREVENTION OF NEW OUTBREAKS.

As regards the reimportation by those apparently convalescent.—No more puzzling problem is presented to the practitioner than that of saying when a child "is well of ringworm," and "fit to go back to school." I err on the side of caution if there is the least doubt, and advise that the same course be taken by others. When a child is well—that is to say, incapable of reimporting or redisseminating the disease amongst his fellows—there will be present certain naked-eye characters and microscopic appearances. The hair will be growing vigorously and naturally in the original sites of the disease; there will be no scurfiness, no broken-off hairs, and the structure of the hair and its sheaths will be properly developed and free from fungus elements. If the hair is dull and dry, suspicion should be excited; and if the suspected surface is *studded over with short broken-off hairs* (readily overlooked), there is still disease present. The fungus will be formed in abundance in the short broken-off hair. As a rough guide this is the best. Condemn a child any portion of whose scalp is studded with little dark points of short broken-off hairs. This is the rule I observed. But no one can be certain in any case without a microscopical examination. If the root is well formed and the hair sheaths likewise; if fenestrated membrane can be seen and no fungus

detected, then all is right. Of course, fungus in any abundance is at once discovered. The doubtful cases are those in which the root seems healthy, but the shaft of the pulled-out hair is observed to be surrounded at its follicular portion above the root with epithelial and exudation matter. This may be an indication that irritation is being set up by the remedies, the ringworm itself being well. I see many cases of this kind, and in them the roots and surrounding structures, and hair-shaft, are healthy formed, whilst no fungus elements are to be detected in the material surrounding the hair. The scalp in these cases is tender, more or less swollen, and reddened, the hair at the same time growing well and vigorously. Perhaps the plainest and easiest guide to disease still existing, is the presence of short broken-off hairs.

Rekindling of the disease from special causes.—In order that ringworm may not "break out afresh" in schools, the non-infected must observe all those directions which were referred to under the head of "dissemination of the disease." Especially it is important to keep heads perfectly clean by frequent washings, and to keep them fairly greased or oiled. To this latter point I attach much importance.

This, in short, is a sketch of the means to be followed in managing ringworm in schools. There are those who think the use of a weak parasiticide to the healthy is advisable. Well, there can be no objection to sponging the heads, even daily, of the healthy with diluted sulphurous acid, one part to six of water, or better, with diluted acetic acid, one part to four or six of water.—*Lancet*, January, 1872.

ON THE RINGWORM OF CATTLE:

ITS COMMUNICABILITY TO MAN; AND THE SEVERITY OF THE EFFECTS PRODUCED BY IT ON THE HAIRY PARTS OF THE SCALP AND FACE.

By HENRY M. TUCKWELL, M. D., Oxon.

Some seven or eight years ago, while working in the Radcliffe Infirmary, my attention was called by Mr. Winkfield, of Oxford, then house surgeon at the Infirmary, to a case of what at first sight looked like a very virulent form of sycosis in a man. The whole of the chin and face, wherever hair was present, was hideously deformed by tubercular thickening, subcutaneous suppuration in the form of burrowing abscesses, and great crusts where the exuded matter had dried on the surface. Mr. Winkfield expressed his opinion that the disease had been

communicated from a cow affected with ringworm, basing this belief on two cases that he had seen a year or two before, where exactly the same appearances had been present in large patches on the scalp in two boys who were employed in tending cattle thus diseased. The man, when questioned, stated that he was a cowman, and employed among cattle that had ringworm. The appearances present recalled to my own recollection a case of severe sycosis that I had seen, in the year 1860, in the Hôpital St. Louis, under the care of Bazin, who pointed out the disease as a typical instance of parasitical sycosis, and showed on the cheek, close by the parts diseased with sycosis, a circular patch of tinea circinata, or, as he called it, herpes circinatus, in which were found the spores of the tricophyton; thus convincingly demonstrating the accuracy of his views as to the parasitical nature of sycosis. Subsequently to Bazin's instruction, I was taught by Hebra that parasitical sycosis does not exist; that in the numerous cases of sycosis which had come under his care he had never seen anything like a spore; nor had any believer in parasitical sycosis ever been able, at his invitation, to show him such a spore. And, in truth, two cases of sycosis that I saw in Hebra's clinique wanted some of the characters that I had noticed in Bazin's: I never saw in other parts of their faces or bodies the circles of tinea circinata which I had seen in Bazin's wards, nor could the tricophyton be detected.

On May 1st of the present year, a boy named Louch, æt. 10, came under my care with an affection of the scalp which, in its peculiarly angry and virulent aspect, brought back forcibly to my mind the condition of the chin and face seen in Bazin's sycosis and in the man whose case is alluded to above. It will be well to describe shortly the characters of the disease on the scalp and face, and then relate his interesting history.

One large patch, distinctly circular in form, three inches and a half in diameter, occupies the right temple just above the ear. Behind this is another circular patch of the size of half a crown; and at the back of the head, on the lower part of the occiput, is a third of the size of a shilling. All these patches have a livid color; the skin covering them being much thickened, infiltrated, and upraised, standing out in relief from the surrounding healthy scalp, and honeycombed in appearance. A dirty brown pus, with offensive odor, oozes through the numerous small openings which lead into the subcutaneous tissue, and the whole is boggy to the touch. The general appearance of things exactly imitates what would be called sycosis in the hairy parts of the face. On the thin hair of the forehead, just at the limit of the hairy scalp, is a small round patch of tinea tonsurans. On the

chin is a circle of tinea circinata * about as large as a shilling, with a red groundwork, on which are fine branny scales and a few vesicles. Microscopical examination of the hairs from the ringworm on the forehead shows well-marked specimens of the tricophyton tonsurans in the root and shaft of the hairs. Abundant clusters of the same spores are also found in the small downy hairs which come away with the branny scurf from the ring on the chin when scraped. The hairs from the boggy patches on the scalp can be extracted very easily and have their roots bathed in pus; but no trace of the tricophyton remains in them.

The boy, who is healthy and robust, states that the largest of the inflamed patches on the head first appeared about three weeks ago in the form of a small ring which itched violently, and was exactly like that now forming on the forehead. The two other patches on the head next appeared in the same shape, and all three became quickly inflamed, causing him severe pain, and for one night making him "light-headed." The ring on the forehead and chin had come out within the last week. He further states that he caught the disease from his elder brother, a lad æt. 17, who some weeks ago caught the ringworm from the calves of a butcher living at Headington, a village near Oxford. His brother had been in the stall helping the cowman "serve" the calves, and had got a large ringworm on his cheek and another on his chin. The two brothers slept together, and the disease broke out in the scalp of the younger shortly after it had appeared on the cheek of the elder. On my inquiring whether this contagion from calves to the men who tend them was common, the boy assured me that it frequently happened, and added, "they gets the stuff from the calves on their jacket-sleeves, and then they gets a nursing of the babies, and the babies gets the ringworm." On my asking his reason for such an assertion, he mentioned a baby in his village—the child of the very cowman with whom his brother had been working—who had so caught ringworm.

I paid a visit to Headington to inquire into the accuracy of these statements, and first found out the baby, on whose arm, sure enough, was a large patch of well-marked ringworm. A little girl, the elder sister of the baby, had a small ringworm on the temple, just passing into the same state as has been described

* Dr. Tilbury Fox's nomenclature is here adopted as most convenient; the generic term "tinea" being retained for all these diseases which depend on the presence of the tricophyton tonsurans, and the appellation "tonsurans" or "circinata" being employed according as the disease is seated on the hairy scalp or the smooth skin.

in the boy Louch; another larger one on the right cheek and ear, also inflamed and dotted with pustules; and a third on the breast. Pains were taken to ascertain whether there were other cases in the adjacent cottages, or in the village, among those who had not been in contact with the diseased cattle, but none such were to be found. I next saw the father of these children, the cowman, in care of the calves said to be diseased. He assured me, on our way to the farm-yard, that he had no doubt of his having given his children the ringworm from his calves, although he never took the disease himself; that in previous years, when he had diseased calves under his care, he had seen the same outbreak of ringworm in his family; and that he believed his hands and jacket-sleeves were the source of the contagion, as the children "got rubbing themselves against him." He corroborated all that the boy Louch had told me as to the elder brother having worked in the stall and caught the ringworm from the same calves. He further told me of an interesting case of contagion that had happened a few weeks before, where a young man got a large ringworm on his upper lip and cheek after inflating for the butcher the skin of one of these calves that was covered with the disease. I have since investigated this case also, and found it to be strictly true.

In the stall were six calves standing side by side, two of which were getting better of the disease—the cowman's favorite application being, both for calves and children, salt-butter, which was regarded by him as an effective parasiticide—but a third was a splendid specimen of ringworm; the head and face, ears and neck being covered at intervals with rings of various sizes, from a sixpence to half-a-crown. Each ring in the calf bears the closest possible resemblance to the ordinary tinea tonsurans in the head of the child. The hairs broken off, like stubble, and heaped-up epidermis scales, with that peculiar slaty or ashy look, are quite characteristic. As in the child, so in the calf, the disease has its seat of predilection in the skin of the head and face; and just as in man the fungus prefers the child to the adult, so also in the case of cattle the cows are affected comparatively but little, while scarcely a calf escapes when once the disease gets into a stall. I watched the affected calf rubbing its patchy head in a friendly way against that of a healthy neighbor, who was evidently doomed on the morrow. The cowman scraped off for me with his thumb-nail a quantity of the scurf and diseased hairs for microscopical examination, and left no doubt in my mind as to what would be the fate of any child who "got rubbing itself against him" on his return home; for, the hairs, after soaking in liquor potassæ, were found to be

loaded with the tricophyton, whose spores and mycelium were beautifully seen infiltrating the hair-bulb, spreading upwards along the shaft of the hair, and bursting forth in large agglomerated masses from the sides of the hairs, which they ensheathed, into the surrounding epidermis. As regards the size of the spores and their plan of arrangement in the hair, they differed in no respect from those in the boy Louch and in the ordinary ringworm of children. What struck me as chiefly remarkable was their great luxuriance in the calf, and the abundance of mycelium present as compared with what is usually seen in man. It looked as if the parasite had got in the hairy animal a soil which thoroughly suited it, and where it could germinate with a vigor that it scarcely puts forth in the human subject. This is a point of interest as probably accounting for the virulence of the disease when communicated from the animal to man.

The details here related may perhaps not be uninteresting to those practising in country districts. The contagion of ringworm from animals to man is certainly known to many dermatologists, but it is surprising how little is said on this subject in the standard works on diseases of the skin. In some no mention at all is made of the matter, and in others it is but passingly alluded to; contagion from domestic animals being recognized, but nothing being specified about the ringworm of cattle. Dr. Fox, in a paper recently read before the Clinical Society and reported in the *Lancet* of March 25, brought forward the cases of seven men who had been attacked with ringworm of a severe kind after contact with a white pony affected with the same disease. He spoke of the patches of ringworm as being "large and more infiltrated than usual;" the central portions of the patch in one case being "studded with minute pustules," and, in another case, "parasitic sycosis being produced." At the end of this paper, the chairman (Mr. Erichsen) is reported to have asked, "if the degree of virulence of the disease was the same in man in similar cases where it had been communicated from the lower animals?" My own observation of the effect produced by the tricophyton of cattle on man strongly confirms Dr. Fox's evidence as to the severity of the irritation caused by the same fungus from the horse, and would seem to justify an affirmative answer being given to Mr. Erichsen's question. The tricophyton of the calf irritates the smooth skin of the child in an unwonted degree, causing circles of tinea circinata, which inflame readily and become studded with pustules; while on the scalp in the child, and on the hairy face in man, it gives rise to severe changes indistinguishable from what is called sycosis.

Modern dermatologists are accustomed to use the term sycosis as applied only to the hairy parts of the face in man, "sycosis menti;" but Bateman draws and describes a disease which he calls "sycosis capillitii," and which accurately represents the state of things caused by the tricophyton of the calf. His drawing is seen in Plate LXVI. of his book, and his description runs thus: "This variety of sycosis, affecting the hairy scalp, is seated chiefly about the temples, near the external ear, forehead, and occiput; near the margin of the hair. The tubercles arise in clusters like the former (sycosis menti), but are softer and more acuminated than those in the chin, and pass more readily into suppuration, soon becoming confluent, and producing an unequal and elevated surface. This is also sometimes granulated, affording some resemblance to the inside pulp of a fig." A most interesting point in the plate, which seems to me to delineate a tinea sycosis, following tinea tonsurans of a severe kind, is that two little erythematous discs, like tinea circinata, are depicted on the neck of the child whose head is represented as an illustration of sycosis capillitii.

It is still a moot question among dermatologists whether the common sycosis, the sycosis menti, is a parasitical affection. Bazin,* who has before all others made this disease a subject of special study, and looks on it as a sort of private property, is very positive on the matter.

For him sycosis is invariably parasitical, and represents a third stage, an advanced progress, of the tricophyton. In the first stage, that of herpes circinatus, the parasite causes on that part of the skin where it fixes itself a simple red ring or disc, whose surface may be dotted with vesicles. In the second stage, that of tinea or herpes tonsurans on the scalp, of pityriasis alba on the face, the spores work their way up the shaft of the hair from its root, and appear on the surface of the epidermis mixed with the abundant white powdery scales of epithelium, and surrounding the broken hairs in form of a dull white sheath. Lastly, a deep-seated inflammation is set up in the irritated hair-follicles, and the pustular and other painful processes commence which usher in the third stage, sycosis. Hardy,† the celebrated colleague of Bazin in the Hôpital St. Louis, follows Bazin's teaching on this subject in that he allows sycosis to be parasitical; but he does not recognize Bazin's three distinct stages, holding rather that the course taken by the parasite depends entirely on the soil which it occupies, being "circiné" in

* "Leçons sur les Affections cutanées parasitaires," p. 141.
† "Leçons sur les Maladies de la Peau," part II., p. 157.

the hairless skin; "tonsurant" in the scalp; and "sycosique" in the beard. Hence for him sycosis begins as sycosis, and is not preceded by the rings of tinea circinata or tinea tonsurans. Our own great authority on skin diseases of parasitic origin, Dr. Tilbury Fox, evidently inclines to the French view of sycosis, designating it as "tinea sycosis," and regarding the identity of tinea tonsurans, tinea circinata, and tinea sycosis as beyond dispute. Hebra,* with his immense experience and unrivalled knowledge of skin disease, persistently refuses to regard sycosis as a parasitical affection, in that he has never seen herpes or tinea tonsurans on the hairy parts of the face, nor discovered the tricophyton in any single case of sycosis that has come before him, although he has eagerly sought after it in the hospitals of Paris and London as well as in Vienna. He defines sycosis as a chronic, non-contagious disease, localized in the hairy parts of the skin, consisting essentially in an inflammation of the hair follicles which gives rise to the formation of papules and tuber cles, thickening of the skin and pustules, the latter being always pierced by hairs. He is honest enough to say that we are absolutely ignorant of its cause; but as he has never met with it in any but men who let their beards grow, he looks on the habit of letting the beard grow as at least predisposing to its attack.

Now, how are we to reconcile these strangely conflicting opinions? I have lately been attending a gentleman with a strong growth of beard, in whom I watched from the very beginning a well-marked sycosis develop itself on the chin. In this case there was never anything like a ring of tinea tonsurans or circinata, from the beginning of the disease to its arrival at its acme; nor could I ever detect anything like a spore in any of the diseased hairs which were plucked out as a part of the treatment. On the other hand, we have seen tinea tonsurans of the scalp leading to a state of things indistinguishable from sycosis —Bateman's sycosis capillitii, and Bazin's demonstrations in the Hôpital St. Louis are undeniable. The probability seems to me to be very great that there is an idiopathic imflammation of the hair-follicles of the face in man which is independent of all parasitical formation, and which constitutes the commoner form of sycosis, such as Hebra delineates; and that there is likewise an exactly similar inflammation set up by the irritation of the tricophyton—a true parasitical sycosis—especially liable to occur when the spores of that fungus are conveyed from the lower animals to man. The rings on tinea circinata and tinea tonsurans are sometimes so closely imitated by other non-parasitical

* Virchow's "Handb. der spec. Path. u. Ther.," Bd. III., S. 520.

eruptions, depending on unknown constitutional causes, that it is only by the presence of the parasite that the tinea can be positively diagnosed. Just in the same way the tinea sycosis may be so counterfeited by non-parasitical sycosis that the demonstration of the tricophyton will be the only means of distinguishing the two affections. That the tricophyton has been so demonstrated there is no doubt; while it is equally certain that it often cannot be discovered by the most practised observers, such as Hebra and his assistants. Bazin's assertion that the parasite is with difficulty, or even not at all, found when suppuration in the hair-follicles is fully established—the fungus being destroyed by the pus—is doubtless true: it was so in the boy Louch, where the tricophyton, though so manifestly present in the patches of tinea, could not be discovered in the suppurating sycosis-like patches in their vicinity. Yet this will not explain away the many instances where, from the beginning to the end of the eruption, no fungus has been discoverable, nor any sign of tinea found in other parts of the body. The real guide to the diagnosis of a parasitical from a non-parasitical sycosis must be either the detection of the fungus in the diseased hairs themselves, or the co-existence of rings of tinea in the neighborhood or in other parts of the cutaneous surface.

In the treatment of this affection it makes all the difference whether the rings are seated on the hairless or hairy parts of the body. In the former case, the destruction of the parasite is very easy, all that is required being the application of one of the ordinary parasiticides. In the latter, the tricophyton takes up its abode deep down in the follicles of the strong hairs of the scalp or beard, and it is absolutely necessary for a speedy cure that the hairs be plucked out carefully from the diseased patch. In this way the fungus is literally exterminated, and a way is made for the parasiticide, which should be applied directly after the epilation has been performed, while the hair-follicles are open. In the boy Louch the simple uninflamed rings of tinea were destroyed at once by a strong iodine paint. The sycosis-like patches on the head were cleaned by the application of one or two poultices, and epilation was then commenced; a lotion containing two grains of corrosive sublimate to the ounce of water being dabbed on the patches after each epilation. At the present time, three weeks from the beginning of treatment, the rings on the forehead and chin are gone; all suppuration beneath the scalp has ceased; the swelling of the skin has disappeared; the smallest of the three boggy patches is cured, and the two larger ones are fast healing.

Since the above was written, the little girl, the elder of the

cowman's diseased children, has been brought into the infirmary on account of the pain and suffering caused by the inflamed patches of tinea on her face and head. The ring on the right cheek and ear was covered with crusts and discharging freely; that on the head boggy and in a state but little better than in the boy Louch; and that on the breast similarly inflamed. In this case, the tricophyton was found luxuriating in the hairs pulled from the ring on the head; the suppuration not being long enough established to destroy the fungus. The changes produced by inflammation had so entirely altered the characters of the eruption, that, had I not seen this in its earlier stages and been able to discover the parasite, I should have experienced much difficulty in recognizing it as tinea.

Another case, having an important bearing on this question, has recently come under the care of Dr. Gray, who kindly allows me to introduce it in confirmation of what has been above stated: —a case, namely, where a large ringworm had formed on the face of a laborer, in another village near Oxford. This ring occupied the same part of the face as in the little girl: one-third on the right ear, and two-thirds on the adjacent cheek, extending over the parotid region. But herein lies the striking feature of the case, that whereas in the child, with its hairless cheek, the whole ring quickly healed when properly treated, in the man, on the other hand, that part of the ring only which was seated on the smooth skin of the ear healed quickly, while that on the hairy cheek was in a state of genuine sycosis, and required some weeks of careful epilation and application of parasiticides before the disease was finally eradicated. The son of this man was a cowherd, and had been tending calves affected with ringworm. Some weeks previously a large ringworm had formed on his back. The father, who slept with the son, and had repeatedly applied ink to the ringworm, noticed shortly afterwards a small ring on his own cheek, which gradually spread and inflamed. He was treated for some time as an out-patient; but his cheek resisted all treatment till he was admitted and cured in the way above mentioned.—*St. Bartholomew's Hospital Reports.* Vol. VII., 1871.

Epitome of Current Literature.

Case of Elephantiasis of the Scrotum—Successful Operation.—Dr. Wm. H. Corbett, surgeon of the 107th Regiment, stationed at Dum Dum, India, reports the following interesting case successfully treated. A native of Lower Bengal named Rupah, a shoemaker by trade, aged about forty years, states that he has suffered for four years from enlargement of the scrotum. At first the growth was very gradual, but latterly it has been rapid, the increase being accompanied by exacerbations of fever. The tumor appears to be about twenty pounds in weight, and extends below the knees. The penis is also involved, and drawn down by the distended integuments, so that nothing of it but the prepuce can be seen, lying about the upper third of the central line of the tumor. This man came under observation in October last, being on a visit to one of my hospital servants, who brought the case to my notice. He appears in good health, does not suffer from fatty heart or enlargement of the spleen, either of which is common in cases of this kind. He walks bowed, but does not complain very much of the inconvenience of such an enormous mass to carry.

On the morning of the 4th November, the man was placed on the table for operation, Dr. Richard Stevens, of the 11th Regiment, N. I., kindly giving the chloroform. I was assisted by Drs. Eustace and Wilson, of the 107th Regiment, and to the advice of these gentlemen and Dr. Stevens, may be greatly attributed the success of the operation.

Having borrowed the ligature used at the Medical College Hospital, Calcutta, in such cases—which resembles a skipping-rope traversing a brass ring—it was applied over the tumor, well up against the perineum and over the pubes, and given into the charge of two assistants, one on either side of the patient; traction was made as it was found necessary. A strong steel director having been passed under the prepuce as far as it would go, it was slit up by a long knife, and the incision extended up to the centre of the pubes. The penis was carefully dissected out and drawn upwards. The next incision was from over the centre of the left spermatic cord, down nearly to the bottom of the tumor, and the testicle with the cord dissected up to the ring. The right testicle was raised in the same manner, and both, with the penis, laid upon the abdomen. The three

incisions were now connected by a transverse incision across the pubes, and the operation was concluded by a single sweep of the catlin removing the entire mass from the perineum. The arteries were rapidly tied, and hæmorrhage checked, the testicles placed on the wound in the perineum to granulate, the penis was rolled up separately in lint dipped in oil and carbolic acid, 1 to 20; the testicles and perineum being covered with lint well soaked in the acid and oil, and the whole supported by a T-bandage and pad.

As the hæmorrhage is very great in these cases, it being, in fact, the only danger of the operation, the tumor was raised for a couple of hours before the operation to drain it of blood, as recommended and invariably practised at the Medical College, Calcutta. Some six or eight large arteries were tied in this case, but generally it is necessary to ligature very many more. Dr. Fayrer, whose experience is very great in these cases, in his "Clinical Surgery of India," shows that as many as from twenty to thirty vessels sometimes require to be tied.

This disease is very common among the natives in Lower Bengal. It is believed to be caused by malaria, and is accompanied by severe attacks of intermittent fever, exacerbations occurring at the change of the moon; and I understand from a gentleman of experience, that these growths are influenced by the sea-breeze, acting in conjunction with malaria, and this is to a great extent proved by the disease not being known beyond the influence of the sea-breeze. Other parts of the body, as the legs, are often the seat of elephantiasis, and in this patient the right leg is affected, but not to a great degree.

Nov. 21.—The case is doing remarkably well. The testicles are drawn upwards by the cord, which is contracting almost daily, and healthy granulations are closing in on every side, so that in a few weeks there will be a perfect scrotum, with the line of cicatrix forming the raphé. The penis is, of course, dressed separately to granulate.—*Lancet*, January, 1872.

Extraction of a cedar pencil from the female bladder.—Dr. J. J. Phillips exhibited a cedar pencil four inches long, one end of which was covered with phosphatic concretion, extracted from the bladder of a girl aged eighteen. The pencil had been passed into the vagina six months previously, and for four months gave rise to no inconvenience. Irritability of the bladder then supervened, and for six months there had been incontinence of urine. One end of the pencil was found in the vagina, the other in the bladder. It could not be extracted by the vagina, but was readily pushed into the bladder. The urethra was then rapidly dilated under chloroform, and the

pencil extracted. The vesico-vaginal fistula closed, and on the fourth day there was no incontinence of urine. The patient made a good recovery.—*Transactions of the Obstetrical Society of London*, February, 1872.

Extroversion of the Bladder.—The operation for extroverted bladder, introduced to the notice of the profession by Dr. Ayres, of New York, in 1859, and since practised by Pancoast, Holmes, Wood, and others, was performed in Charing Cross Hospital, on the 13th of July last, on a young man, by Mr. Bellamy. Unfortunately, however, the superior abdominal flap sloughed away in consequence of the patient's incessant coughing, from bronchitis, after the operation. The lateral flaps retained their vascularity, but became two cutaneous nodules, like walnuts, growing from the lower part of the groin on each side, the left larger than the right. On November 4th Mr. Bellamy tried a second operation, in which he hopes to be more successful. The right flap he carefully dissected from the subcutaneous tissue, after making an incision round the outer, upper, and inner margins. The left flap, which was very thick, he divided, and dissected the inner half as he had done the right flap. The three were then carefully drawn over the mucous surface of the bladder, and united by suture. Of course there is now no possibility of obtaining an abdominal flap; yet some relief will be afforded to the patient if this operation be successful.—*British Medical Journal*, November, 1871.

Doubtful Tumors of the Leg.—Mr. Jonathan Hutchinson exhibited some small tumors which had grown on the leg of a healthy woman, just below the knee, between the bones. They had been growing for six months, and at first were supposed to be syphilitic, and presented, indeed, all the characters of a syphilitic node in the muscles. They failed to yield to iodide of potassium, and as they showed signs of extension, the leg was amputated. Distinct masses were found infiltrating two or three muscles, and the bones in the neighborhood were apparently inflamed. There was a large infiltration of deposit in the tibialis anticus, and another smaller and more circumscribed in the peroneus longus. Microscopical examination had as yet thrown little light upon their nature, and they were accordingly referred to the Morbid Growths Committee. —*Transactions of the Pathological Society of London*, February, 1872.

Case of Syphilitic Cirrhosis and Amyloid Disease of the Liver and Kidneys.—Dr. Liveing presented this case with the following history. The patient, a young man, aged

twenty-one, had died exhausted from phthisis and diarrhœa of a year's duration. At the post-mortem examination the bones of the calvaria were found extensively diseased. The liver and kidneys were found in the condition above mentioned, large, smooth, and puckered, and several ulcers were seen on the mucous surface of the large intestine. During life the urine had been abundant and pale, and contained granular casts. Niemeyer states in his text-book that in cases of albuminoid diseases of the kidneys the urine is scanty and dark-colored.—*Transactions of the Pathological Society of London*, February, 1872.

Case of Madura Foot.—Mr. Jabez Hogg exhibited a specimen of Madura Foot. The patient from whom the mass had been removed was a young man aged eighteen. Some years previously he had struck his foot against a sharp stone, and six months ago he was admitted to the hospital with a small abscess on the sole of the foot at the seat of the former injury. On changing the poultice one day, several of the dark, sooty truffle-like bodies were found; the disease was diagnosed, and the diseased portion was excised. Mr. Hogg had examined these sooty bodies, and was sure that they were the result, and not the cause of the disease. They were algoid in structure, and in no way resembled the mycelium of the truffle. —*Transactions of the Pathological Society of London*, February, 1872.

Kidinga Pepo: A Peculiar Form of Exanthematous Disease.—Dr. James Christie, physician to the Sultan of Zanzibar, has sent to the Epidemiological Society of London a communication on this peculiar form of exanthematous disease, epidemic in Zanzibar, east coast of Africa, from July, 1870, till January, 1871. This fever sprang up after the complete disappearance of cholera, and was recognized by the old inhabitants as identical with one which appeared as an epidemic on the East Coast of Africa about forty-eight years ago. It was quite unknown to the natives of India, from Bombay and Scinde, resident in Zanzibar; but the Arabs from Hydramant, on the Gulf of Arabia, were familiar with it. The name of "Kidinga Pepo" means cramp-like pains produced through the agency of an evil spirit. This disease resembles in its most important symptoms "dengue," or scarlatina rheumatica. The patient was seized very suddenly with pain and stiffness of the muscles, especially those of the palms of the hands and soles of the feet; fever followed, varying greatly in intensity. The skin became hot and dry, the tongue red and spotted but generally clean,

the face of a bright scarlet color. This coloration was marked in every case, and usually accompanied by a puffy swelling so as to imitate erysipelas of the face; it was characteristic of the disease. There also occurred swelling and pain of the smaller articulations, besides much pain in the shoulders, back, etc. These symptoms were accompanied by very obstinate constipation. This first period of forty-eight hours was followed by a very complete remission of from two to three days. The fever returned on the fourth day, always with lessened intensity; on the fifth an exanthematous eruption, different from that of measles, of rubeola, and of scarlet fever, and more like that of erysipelas, appeared and spread over the whole body in forty-eight hours. Then occurred swelling of the lymphatic glands of the head and face, and especially of the occipital glands; redness and even tumefaction and rawness of the mucous membranes of the nose, mouth, and, in severe cases, of the throat. During this time the stiffness of the muscles and pain of the articulations continued, and on the seventh or eighth day there was desquamation of the cuticle, and the acute stage terminated. Dr. Christie considers that this disease differs from "dengue" in several particulars; the swelling of the lymphatic glands did not occur until the third stage of fever; the eruption was invariable in form, and, as described, unlike that of dengue, which presents many varieties; the implication of the mucous membrane of the mouth and throat, and the articular pains, were to a greater or less extent invariably present, except where there had been previously attacks of malarious fever, sunstroke, etc. The symptoms and course of the disease were remarkably invariable and characteristic. The sequelæ of "Kidinga Pepo" were much more severe than those of "dengue;" the muscular pains may continue for months; and Dr. Christie himself, who was the first European attacked, suffered severely for two months afterwards. These chronic pains affected especially the shoulder, wrist, and ankle joints; and in addition to them, there was chronic tenderness of the superficial lymphatics. The disease appeared to be communicable, the members of a household being usually attacked one after another. "The Europeans suffered much more acutely than the natives, and very few escaped an attack. In no case did the disease recur in an acute form, and there were no fatal cases either among children or adults." The disease was treated during the first day with purgatives and five-grain doses of quinine. On the remission of the fever, iodide of potassium in four-grain doses was administered with the most marked effect on the articular pains. Dr. Christie says, "I know of no medicine more enti-

tled to the name of a specific than the iodide, its effects in subduing the disease being more marked than those of quinine in the treatment of malarious fever." During the discussion which followed the reading of the paper, it was suggested that the word Dengue might possibly be a corruption of Kidinga.—*Transactions of the Epidemiological Society of London*, January, 1872.

Connection of Nerves with Pigment Cells.—An Essay recently appeared in the *Monthly Microscopical Journal*, by M. Pouchet, in which he endeavored to show that the chromoblasts of various flat-fish are composed of masses of sarcodic substance containing pigment granules or fluid and a nucleus, and that they are in direct connection with the finest branches of the nerves. In a paper contained in the same journal of the present month by Dr. Lionel Beale, this view is contested, Dr. Beale stating that in *no* case do the finest terminal ramifications of the nerve-fibres end in the manner described. Dr. Beale's observations were made with very high powers.—*Lancet*, February, 1872.

The Chemistry of the Testis.—This subject, which has received but little attention from former observers, has been recently investigated by Dr. Treskin in the laboratory of Professor Hoppe-Seyler. In his experiments, the tunica albuginea was removed from both testes in the steer, roedeer, and goat; and the proper gland-substance, after minute division with glass rods, was macerated for six hours in ten times its volume of water. This being evaporated, furnished—1. *The Watery Extract.* The residue of the gland was submitted for the same length of time to the action of a weak solution of common salt, which gave—2. *The Saline Extract.* The residue of the gland-substance was then placed in warm alcohol, and kept in a warm-water bath for some time, thus furnishing—3. *The Alcoholic Extract.* Lastly, some water was added to withdraw the alcohol, and the mass was then immersed in a solution of soda for two days, yielding—4. *The Alkaline Extract.* 1. The watery extract was acid, and cloudy even after filtration, and gave an abundant precipitate with a little acetic acid. The precipitate was insoluble in solution of common salt, and, therefore, was not of the nature of globulin, but agreed in its chemical characters with alkali—albumen, or acid albumen. Further somewhat complicated research showed that the watery extract contained leucin, tyrosin, chloride of potassium, chloride of sodium, and an organic acid the precise nature of which was not examined. Alcohol took up from the watery extract evaporated to dryness,

leucin, tyrosin, and chloride of potassium, and on one occasion kreatin was found. Phosphoric acid and inosite also formed a constituent of this extract. Dr. Treskin noted the presence of kreatinin, but is unable to say whether it existed preformed, or proceeded from the kreatin already shown to exist in this extract. 2. The saline extract contained globulin and a myosin-like substance. 3. The alcoholic extract contained cholesterine-lecithin. 4. The soda extract appeared only to contain some salts, and a little mucin. The percentage of water in the testis was 86·72, and Kölliker had already shown that in cattle, the solid residue being 13·035, the organic substances amounted to 11·427, and the inorganic to 1·308. Special examination for glycogen in the testes of dogs (not at pairing-time) failed to detect any trace of its presence.—*Lancet*, February, 1872.

The Blue Stains of Typhoid Fever.—It is well known that Trousseau, Griesinger, Grissolle, and Monneret considered the appearance of the stains in fever as a favorable sign. M. Gilhem, however, publishes in the *Gaz. Med. Chir. de Toulouse*, July, 1871, a case in which these stains were observed, and which ended fatally. It would be useful to collect cases of typhoid fever where the stains were noticed, to determine their real value in prognosis.—*Lancet*, December, 1871.

The Tattooed Man.—In the *Wiener Medizinische Wochenschrift* for January 13th, a full account is given of the tattooed man, whose case has created such interest both in and out of Vienna. This man states that he is an Albanian, forty years of age, and unmarried. Besides Greek—his native tongue—he speaks Arabic and Persian fluently, French, Spanish, Italian, German, and English with various degrees of fluency and correctness. His accounts of his life vary somewhat. According to one statement he has been for the last five years engaged, together with eleven companions, in fortune-hunting, in the shape of working gold-mines in Chinese Tartary. During a rebellion which took place in that country he supplied the rebels with arms, and upon the defeat of the insurgents was, with his companions, taken captive. Nine of the prisoners were put to death; the remaining three, including himself, were sentenced to the "punishment of tattooing," in order that they might ever hereafter go about as "marked men." One of the victims died, either in consequence of the severity of the operation or from disease; a second, blind, lives yet at Hong Kong; while the third, the subject of the present communication, managed to make his escape through China to a port on the Indian Gulf. From thence an English ship brought him

to Manilla, thence to Hong Kong, from which place he returned, *via* Suez, to Greece.

According to another account he engaged, together with some Frenchmen, in hostile operations against the Chinese, by whom he was taken prisoner and tattooed. The operation was thus performed:—The victim was held fast by four strong men, his struggles being further quieted by threats of instant death, while for three successive hours daily the artist—always the same man—worked away at him. In less than three months he was tattooed from head to foot. When the man, who is of middle height, and beautifully and strongly built, is stripped, it seems as though the whole of the body was tightly enveloped in a webbing (Triest) of richly woven Turkish stuff. From the crown of his head to the tips of his toes he is covered with dark-blue figures of animals and plants, in the interspaces of which appear to be characters in blue and in cinnabar-red. The hands are tattooed on both surfaces, but only with inscriptions. The blue figures stop short at the insteps of the feet, but the tattooing is continued along the toes to the root of the nails in the form of red characters. Through the very hairs of the scalp and the beard appear also designs in blue. On the forehead, one on either side, are two panthers, "regardant," as heralds would say, and separated in the middle line by red characters. There are altogether on the body no less than 388 figures. All of these are of a blue color, and represent apes, leopards, cats, tigers, eagles, crowned sphinxes, storks, swans, men, women, elephants, crocodiles, snakes, fish, lions, snails, fruit, leaves, flowers, bows, arrows, and quivers. Some of these are fairly done after nature; others are "conventionalized" (stylisirt). The inscriptions on the surfaces of the hands belong, according to Prof. Müller, to the language of Burmah. The man states that he has been in the region of this country. The skin is everywhere, even over the figures, smooth and supple, and, moreover, freely transpires. The figures and characters may be analyzed into single blue or red points, of about the size of a pin's head, in the centre of each of which is a whitish scar-like pit.

It appears extremely probable that the tattooing has been done with the juices of plants and not with the usual agents—*e. g.*, powdered charcoal or gunpowder for a blue color, and cinnabar for a red—and for the following reasons: Bärensprung and Virchow have shown, long ago, that after tattooing with agents such as cinnabar, some of the particles remain entangled between the meshes of the true skin (corium), while those which find their way into the lymphatics are arrested at,

and become encapsuled in, the nearest lymphatic glands. As the man will not submit to the removal of a small piece of his skin, the absence of the former of these conditions cannot be proved; but as the lymphatic glands are in no part of his body swollen, the absence of irritating particles may fairly be inferred. The instrument, moreover, with which he was tattooed, and which he has brought away with him, is split, like a steel pen, at the tip, so that fluid substances could easily be taken up by it.

The man has, of course, been photographed. Copies of parts of the body, of the natural size, will however appear in Part 8 of Prof. Hebra's "Atlas."—*Lancet*, February, 1872.

Sclerema Adultorum.—Attention is again directed by Dr. J. Neumann, in the *Wiener Medizinische Presse*, to the remarkable form of cutaneous disease to which the term "Sclero-derma or Sclerema Adultorum" has been applied. Though individual cases were recorded by older writers, no special essay upon it appears to have preceded that by M. Thirial, in 1845, who published in the *Gazette Médicale* an account of all the cases he had been able to collect, and applied the term "Sclerema" to the affection. Since then no less than fifty cases have been reported; and Dr. Neumann himself adds three more to the list. In most of the cases the skin becomes gradually harder and more tense, though in some instances, and especially when the attack is acute, there is a preliminary stage of œdema. Hebra and Rasmussen distinguish two forms of the disease—"Sclerema elevatum" and "S. atrophicum," of which the former is the acute and the latter the chronic type. The disease has been preceded sometimes by rheumatism, sometimes by recurrent attacks of erysipelas, and occasionally it has appeared to originate in injury; but little is really known of its etiology. The symptoms are very variable, but there is always the disagreeable sensation of tension, impeding movement to a greater or less extent. Thus, if the sclerema affects the neck, the rotation and flexion of the head are interfered with. In sclerema of the face, the facial expression is lost, the natural lines and forms are smoothed out, and the play of the features is lost; the eyelids droop; the alæ nasi are stretched, and the nose is flattened; the oral opening is contracted, and the movements of the lips rendered difficult. With regard to other parts of the body, the abdominal wall is made tense; the scrotum and penis so tense that no erection can occur; the elbows are bent; the fingers half extended and claw-like; the spinal column is bent forward; and the respiration even impeded. In one of Dr. Neumann's cases violent itching was complained of; and in this

case the temperature was considerably elevated, though it is usually depressed. The secretion of the sebaceous follicles does not wholly fail, since pustules of acne have been observed to form. In some instances the secretion of sweat seems to be entirely arrested, but not in others. The disease has been observed to be associated with erythema, partial teleangiectasis, ulcerations, and acne. It is more common in females than in males; and the majority of cases have occurred between the ages of twenty-five and forty, though one case is recorded in a patient aged six, and in another aged seventy-two. The pathological conditions of the skin that have been discovered under the microscope are hypertrophy and condensation of the subcutaneous cellular tissue, with coincident atrophy of the adipose tissue, deposit of pigment in the rete Malpighii, around the vessels, in the cellular investment of the several ducts, in the outer root-sheaths of the hair, and in the sebaceous follicles. The pigmentation, however, appears to bear no relation to the intensity of the disease, the densest parts being often the lightest colored. In one of Dr. Neumann's patients the epidermis was found to be unaltered, the cells of the rete Malpighii were increased in number, and formed wart-like processes, dipping into the cutis, not pigmented. The fibres of the cutis formed large and strong bands that preserved the characters of connective tissue, and were intermingled with thick trabeculæ of elastic tissue. Collections of cells occurred in the deeper parts of the corium, and in the panniculus adiposus, the fat of which was much atrophied. The sweat-glands were individually much hypertrophied; and the smooth muscular fasciculi were also much increased in size. The vessels running in the cutis were large and filled with blood; but the branches running towards the papillæ were small and empty. The hairs were small and woolly; but the sebaceous follicles were large. No treatment has been hitherto suggested that possesses any value in curing, or even in staying the progress of the disease.—*Lancet*, March, 1872.

Therapeutical Notes.

Cautions to be observed in the use of Calomel Vapor Baths.—Mr. Henry Lee was one of the first to introduce calomel baths to the notice of the profession, and before doing so had labored to find out the cause of failure of the cinnabar and gray oxide of mercury. The cinnabar was decomposed by heat, and gave off sulphurous acid, which irritated the lungs. The gray oxide was decomposed, and, absorbing oxygen, became the bin-oxide, and acted more powerfully. Calomel, when used with water, as he recommended, was, he thought, perfect; the skin was acted upon, and the lungs were not irritated. During the fumigation of dry calomel, hydrochloric acid was given off, which was very irritating to the lungs, but no bad results followed if water were used as well. In the case of a young woman in good health and well nourished, who was suffering from a syphilitic ulcer of the throat, twenty grains of calomel were volatilized in a teapot and inhaled. The skin became cold and livid, the lips blue, and the pulse small. On a post-mortem (for the woman died), the lungs were emphysematous, and there was effusion into them. The other organs were healthy, and the fumigation, no doubt, caused the death; but if a little vapor of water had been present, no harm would have happened. In another case, a man inhaled thirty grains of calomel from a teapot for four nights, for the cure of a hoarseness which had lasted two years, and which had resisted a great variety of treatment. The hoarseness was cured without salivation, but the man has suffered ever since from a cough and a pain in the chest. The lungs are not diseased, and no tubercle is present. With regard to the bath, Mr. Lee had not seen bad results, except from pre-existing disease. He does not salivate, but gets a slight tenderness of the gums.—*Transactions of the Medical Society of London*, January, 1872.

Case of Lupus Exedens treated by large doses of the Iodide of Potassium.—Mr. Gay, Surgeon to the Great Northern Hospital, has recently had under his care the following interesting case of Lupus Exedens, which has been successfully treated by large doses of the iodide of Potassium. The disease had slowly extended for twenty years, and had eaten away the greater portion of the superior maxilla, and the nasal

bone and cartilage, on the left side. An effort at extirpation, to be followed by a plastic operation, had been decided on, when it was suggested that large doses of iodide of potassium should first be tried. No syphilitic history could be elicited, but the treatment was commenced with twenty-grain doses three times daily. These were soon increased to half a drachm. The effect on every part of the ulceration was remarkable. The surface of the sore, from a dull and torpid-looking red, became bright and velvety, and healing at the margin became rapidly established. It continues to make such progress that there is every prospect of complete cicatrization being ultimately attained. It is curious to observe that the first step in the healing process is the formation of scales of epithelium, which appear to be unhealthy and adhere but slightly to the surface; but beneath these is developed a cicatrix composed of healthy scales. The case is still under treatment.—*Lancet*, Dec., 1871. We are now able to report that the case entirely yielded to the treatment by large doses of iodide of potassium, which we mentioned at the time was having a most salutary effect. The iodide has been given in doses of half a drachm three times daily, and the patient has got completely well. She is sixty-eight years of age, and the disease has been in progress twenty-two years. At no period of the treatment have symptoms of iodism been induced. We are further informed that there is no reason to suppose that the origin of the ulcer was in any way referable to a syphilitic taint.—*Lancet*, February, 1872.

Treatment of Itch in Children.—Dr. Monti believes that Fröhlich was the first who suggested that itch should be treated with balsam of Copaiba. Dr. Monti himself, however, has made many experiments to determine how long the itch insect will live in the balsam, and finds that when it is rubbed into the skin of infants it produces redness and sensation of burning, which disappears in the course of half an hour, and that, after a single infriction, the itching ceases, and a complete cure, without chance of relapse, occurs in from two to twelve days, without any accompanying disturbance of the urine or digestion. Recovery from scabies nodosa was very prompt; the balsam appeared to exert no curative influence on the eczematous, whilst this plan of treatment was not appropriate to the pustular form of the affection. In all his cases the child was well washed with soap and water, and rubbed all over twice daily with the balsam. Baths were not necessary. Thus it would appear that the treatment of itch by these means in infants is to be specially recommended, since it quickly effects the end in view, causes no eczema, and is less expensive than the similar method of

treatment in which Peruvian balsam is employed. The application of a solution of carbolic acid, of the strength of one part in one hundred of water, for the cure of itch, has been recommended by Lemaire and Duviviez. Zimmer washes or bathes children affected with the disease three times a day in a solution containing from five to eight parts of carbolate of soda in one hundred of water. Dr. Monti has treated twenty-six children with carbolic acid. He applies a watery solution in the form of carbolic acid one or two drachms, water a pint, or an ointment in the form of carbolic acid a drachm, simple ointment four ounces. The treatment, again, on the average, lasts from two to four days, or, if eczema be present, twelve days. He has never observed any symptoms of poisoning. This plan produces slight eczema, but causes no pain, is very cheap, and does not require baths.— *Wiener Med. Presse*, 1871.

Treatment of retention of urine in impermeable strictures of the urethra.—Dr. P. A. O'Connell suggests the use of an india-rubber ball and hard rubber stem as an exhauster, or suction instrument for the relief of the bladder, in cases of so-called impermeable strictures. He uses a catheter of medium size, with a perforation at the extreme end, which is passed down to the strictured part of the urethra; then squeezing the rubber ball, to drive out the air, it is connected with a short piece of india-rubber tubing with the catheter already in the urethra, and allowing it to expand gently, instructs the patient at the same time to make a gentle effort to pass his water. He has been successful in the treatment of two cases.—*Lancet*, March, 1872.

Xylol in the Treatment of Small-pox.—In the small-pox division of the Royal Hospital (Charité), a new remedy has been for some time in use in the treatment of the disease, Xylol (Dimethylbenzol, a body of the benzoyle series, in which two atoms of hydrogen are replaced by two atoms of methyl). The article was a long time ago recommended by the surgeon in charge of the division, Dr. Zuelzer, in the treatment of tic douloureux. In small-pox it is given in doses of 10 to 15 drops every hour or every three hours, pure in gelatine capsules, or to such as cannot swallow capsules, mixed with water. The results so far have been favorable. As the small-pox epidemic is still on the increase, the remedy seems worthy of further trial.—*Berliner Klinische Wochenschrift*, No. 51, 1871.

About Books.

A Practical Treatise on the Diseases of Women. By T. G. Thomas, M.D. Third Edition. Philadelphia: H. C. Lea. 1872.

It must be gratifying to Dr. Thomas that the professional appreciation of the "Practical Treatise" has again called for a new edition—the third since 1868. The author has made the best possible acknowledgment of this appreciation, that is, he has used the most diligent efforts to improve his work in every respect. The additions amount to nearly one-fourth as much as the whole of the previous edition. Many portions have been re-written, and several new chapters introduced. Of course, in this remodelling many alterations have been made. These changes are, however, such as increasing experience and prolonged investigation necessitated, and hence are absolute improvements.

Of the work itself, in the original block, we need hardly make any criticism at this date. It has firmly established itself as *the* American text-book of gynæcology. Without being prolix, it treats of the disorders to which it is devoted, fully, perspicuously, and satisfactorily. It will be found a treasury of knowledge to every physician who turns its pages. We may add that the publisher, Lea, of Philadelphia, has performed his part of the work well. The text is in a fine, open type, and is printed on superior white paper.

A Practical Treatise on Fractures and Dislocations. By Frank H. Hamilton, M.D. Fourth Edition. Philadelphia: H. C. Lea. 1871.

Dr. Hamilton's work is, we think, open to one objection—it is not full enough or specific enough in its instruction to students regarding the best course of treatment to be pursued in fractures and dislocations. In teaching students who are to be thoroughly equipped for all the emergencies of this branch of surgery, what is above all wanted is the inculcation of *imperative* views and rules. The student should be left in no doubt as to what is the proper course to be pursued. It is here we put our finger on the weak point of Dr. Hamilton's work. It is learned and exhaustive; its comparative views and its bibliography are admirable; but it fails to set in due boldness of relief those procedures that are vital, and thus leaves the tyro uncertain between mere matters of erudition and the rules of absolute guidance.

We have set this objection in the forefront of our criticism, because it is really the only cavil we have to make. The book is of first-rate merit, and has given the author high rank both at home and abroad. Dr. Hamilton, in this the fourth edition, has shown extraordinary industry in keeping up with the accumulated and accumulating literature of the subject. The

volume has been specially enriched by the introduction of several of the excellent illustrations contained in Dr. Bigelow's admirable treatise on *The Mechanism of Dislocation and Fracture of the Hip.* In other respects the mechanical and artistic features of the present edition show a marked improvement over those of the previous editions. The publisher is Lea, of Philadelphia.

A TREATISE ON HÆMOPHILIA, SOMETIMES CALLED THE HEREDITARY HÆMORRHAGIC DIATHESIS. By J. WICKHAM LEGG, M.D. London: H. K. Lewis. 1871.

THIS is an exceedingly interesting little work on a subject about which comparatively little is known. While much has been written from time to time, the pathology of the disease, or rather symptoms, is unknown. Dr. Legg has industriously compiled the views of all those who have written on the subject, with the hope, no doubt, of throwing enough light over the field of research to enable us to draw deductions that may be useful, and form a basis for future observations. The book is well written, and is beautifully printed.

AN INTRODUCTION TO PATHOLOGY AND MORBID ANATOMY. By T. HENRY GREEN, M.D., London. Illustrated. 8vo. Philadelphia: Henry C. Lea. 1871.

THIS book is a strictly elementary text-book on pathology and morbid anatomy. The author very properly avoids, as much as possible, any discussion of the conflicting views entertained by different pathologists respecting some of the subjects of which it treats. It embodies in a comparatively small space a clear statement of the present state of our knowledge of pathology and morbid anatomy. The author shows that he has been not only a student of the teachings of his *confrères* in this branch of science, but a practical and conscientious laborer in the post-mortem chamber. The work will prove a useful one to the great mass of students and practitioners whose time for devotion to this class of studies is limited.

THE PRINCIPLES AND PRACTICE OF SURGERY. By JOHN ASHURST, JR., M.D. Illustrated, 8vo. Philadelphia: Henry C. Lea. 1871.

"THE object of this work is, as its title indicates, to furnish, in as concise a manner as may be compatible with clearness, a condensed but comprehensive description of the modes of practice now generally employed in the treatment of surgical affections, with a plain exposition of the principles upon which those modes of practice are based." The work is divided into two principal divisions, treating respectively of surgical injuries and surgical diseases. The processes of inflammation, surgical operations, the use of anæsthetics, as well as the minor details of practice usually embraced under the term of minor surgery, are all clearly discussed in their proper places. The work is, in the main, a clear and lucid exposition of the prin-

ciples and practice of surgery as pursued by the best masters of the present day, enriched in no small degree with the views and experience of the talented author, one of the brightest and most accomplished surgeons of this country. The volume is a valuable contribution to the literature of surgery; it conveys more sound information than any other single volume of surgery that we have ever seen. The author has displayed a thorough knowledge of both the art and the science of surgery, and conveys it to his readers in a singularly attractive and graceful manner. The work is well printed and fully illustrated. It is a volume that reflects credit alike to author and publisher.

Obituary.

HENRY D. BULKLEY.

DR. HENRY D. BULKLEY died of pneumonia, after a short illness, January 4th, 1872, aged sixty-eight years. He was born April 4th, 1804, at New Haven, Conn. He was graduated at Yale College in 1821. Coming to New York, he was engaged in mercantile pursuits for some years. Not meeting with the success he had anticipated, he returned to New Haven and entered as a student with Dr. Jonathan Knight, and received, in 1830, the Doctorate of Medicine from the Medical Department of his alma mater. In 1833 he returned to New York, and was shortly after appointed to the responsible position of Surgeon in the Department of Skin Diseases at the New York Dispensary. It was at this institution that he obtained practical experience in the treatment of skin diseases, and which served him so well in after years. He subsequently delivered a special course of lectures, during the spring, at the College of Physicians and Surgeons. He was for some years Attending Physician to the late New York Hospital. In 1867 he became President of the Medical Society of the County of New York, and in 1869 President of the New York Academy of Medicine, and in 1870 President of the New York Society of Dermatology and Syphilography. His literary contributions were very few, and are now almost forgotten. He edited an American edition of Burgess' English translation of Cazenave and Schedel's "Manual of Skin Diseases." He was for some time editor of the *New York Medical Times*, long since dead. Dr. Bulkley was a devout member of the Presbyterian Church. As a friend, he was an exceedingly kind, generous, faithful ally; as a physician, he was painstaking, careful, and thoroughly honest. He was, in every sense of the word, a good Christian gentleman. The regret that was felt at his sudden death was sincerely expressed in the resolutions that were passed at the meetings of the New York Academy of Medicine, the Medical Society of the County of New York, and the New York Society of Dermatology and Syphilography. He leaves a widow and four children to mourn his loss.

Editorial.

THE BOSTON DISPENSARY FOR SKIN DISEASES.

A DISPENSARY for the exclusive treatment of skin diseases has been established in Boston, mainly through the exertions of Dr. Edward Wigglesworth. No special provision being made at the Boston Dispensary for the treatment of this class of diseases, a charity of this character was much needed. The trustees of the charity have been fortunate in securing the services of Dr. Wigglesworth, whose attainments have already secured him honorable recognition among the best informed of his *confrères* in Boston. The main advantages of a special Dispensary are these:—to secure the services of a physician-in-chief, specially fitted by education and experience to render service to the poor that cannot be obtained at the general dispensaries, and further to afford special means of treatment that are not supplied or available at other institutions. The physician has been secured; it depends now on the liberality of the Bostonians to subscribe the means to make the skin Dispensary not only a credit, but an absolute advantage to their city.

THE ADVANCEMENT OF DERMATOLOGY.

WE have received, through the kindness of Dr. Tilbury Fox, an early copy of a "Scheme for Obtaining a better Knowledge of the Endemic Skin Diseases of India," prepared under the auspices of the Indian government for circulation amongst the medical officers of that vast country. It has been prepared by Drs. Tilbury Fox and T. Farquhar, of the Bengal Medical Service. The two main objects proposed in the Scheme are: 1. "To obtain and then to circulate a better knowledge of the more important endemic skin diseases of India, or such as principally attack the skin; and thereby, 2. To bring about an agreement, which is far from existing at present, between the profession in India and in England as to the nomenclature, the typical character, the varieties, and the probable or demonstrated causes of the diseases in question." Beyond these purposes the Scheme is an advancement in the culture of scientific medicine that will inure not only to the benefit of the people of England and India, but to the whole world; already the Colonial Secretary has asked for copies to be sent to the West Indian Islands, and the Director-General of the Medical Department of the Navy has applied for a sufficient number to be sent to China and other parts of the East Indies.

The successful operation of a plan of this character cannot fail to be productive of the very best results, and we shall look with more than ordinary interest for the benefits that will undoubtedly accrue from this system of obtaining information on these important questions. The inquiry will be

of inestimable service in furnishing "valuable guides for the more speedy recognition and the better treatment of the numerous cases of peculiar skin diseases that are imported into this country and elsewhere from India, a locality that abounds in material for scientific investigation as regards the influence of climate, etc., upon cutaneous disease." In the preparation of the scheme Dr. Tilbury Fox has shown that largeness and breadth of information on cutaneous diseases, as well as the general essentials of practical medicine, that has already won for him the most enviable position among British dermatologists. We shall at some future time review the work in detail.

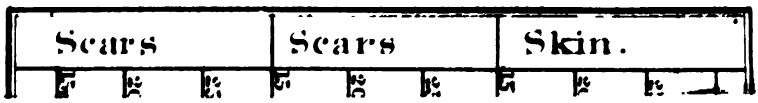
THE PHILADELPHIA DISPENSARY FOR SKIN DISEASES.

THE first annual report of the Philadelphia Dispensary for Skin Diseases, containing an analysis of the diseases treated, has been published, and to those interested in this branch of medicine it will be of practical service. The Dispensary was opened to the public on the 7th of January, 1871. During the year which has just terminated, four hundred and twenty-five cases were admitted and treated. The whole number of distinct diseases observed and included in the appended table was thirty-nine, which occurred in the following frequency:—

Eczema, 185; syphilodermata, 46; acne, 28; leborrhœa, 27; psoriasis, 20; pruritus cutaneus, 14; tinea versicolor, 11; urticaria, 10; ptheiriasis, 9; scabies, 7; icthyosis, 5; epithelioma, 5; lichen pilaris, 5; erythema, 4; scrofuloderma, 4; ulcera, 4; lupus vulgaris, 3; furuncle, 3; rosacea, 3; tinea tonsurans, 2; tinea circinata, 2; lupus erythematosus, 2; chloasma, 2; elephantiasis arabum, 2; alopecia areata, 2; comedones, 2; herpes iris, 2; sycosis non-parasitica, 2; dermatitis traumatica, 2; varix, 2; sebaceous tumors, 2; erysipelas, 1; carcinoma, 1; herpes zoster, 1; callositas, 1; onychia, 1; irregular vaccinia, 1; milium, 1; amounting in all to 425 cases.

It will be noticed that a very large proportion of the cases are included under the name of eczema. Under our more modern nomenclature this term is made to embrace a number of appearances due to the same pathological cause. This is a progressive step. The habit of former times, to attach a new name with a multitude of synonyms to the slightest variation in the appearance of a disease, has been, to a very great extent, injurious to the more general cultivation of a knowledge of dermatology. In the general plan of treatment in cases of eczema, Dr. Duhring, who is the physician in charge of the Dispensary, pursues the method of Hebra. Two months were usually found to be sufficient for the cure of the chronic eczemas of the leg. In the treatment of most of the diseases Dr. Duhring has not confined himself to the "local plan," but has availed himself of all the resources likely to be of constitutional benefit. The report shows an exceedingly satisfactory condition of the affairs and administration of the charity.

PLATE III.



THE AMERICAN JOURNAL

OF

SYPHILOGRAPHY AND DERMATOLOGY.

JULY, 1872.

Original Communications.

CONTRIBUTIONS TO THE PHYSIOLOGY AND PATHOLOGY OF SCARS.

By G. J. SWERCHESKY, M.D.

Surgeon to the German-American Dispensary, New York.

Part II.—Elasticity of Scars.

We may, on account of the anatomical differences between the scar and skin tissue alone, conclude that their elasticities are also different. For the microscopical comparison of the tissues, the tanned preparations are the best. In a thin tanned skin we can see that the upper portion, or narrow papillary layer, consists of isolated fibres of connective tissue, interwoven together without any order, like felt, so closely, that there is no space to be seen between them. The inferior layer consists of bundles which have usually a horizontal direction, and are very loosely united together. The empty spaces which can be seen here between the bundles are filled in the fresh condition with cementing substance and lymphatic lacunæ. The tanned preparation of the scar of the dog resembles greatly the papillary layer of the human skin, *i. e.*, it consists of thin fibres of connective tissue, which, however, are disposed horizontally in an undulating form, and approximate so closely that no intervals can be seen. If we compare the skin and scar of the dog, the difference of structure between them will be still more evident,

for there is scarcely any papillary layer in the skin of the dog All that has just been said applies to fully developed scar tissue, that has acquired a fibrillary structure, because when young it consists, as do all tissues originating from the connective substance, of cells and interlying gelatinous substance.

The wounds giving rise to the scars were made in the same way as in the preceding experiments. The shape, dimensions, situation, direction, and age were identical. Almost all the dogs were of middle size. The number of scars examined was thirty-three.

The apparatus that I employed was constructed on the principle of Prof. Langer's apparatus, but several modifications suggested by Prof. Tomsa made it more precise. A glass box, of quadrilateral prismatic shape, was mounted on a strong wooden tripod. The panes were set in brass frames. The glass cover and bottom of the box were provided with openings. The cover was made to fit accurately. In the opening of the cover was placed a brass cylinder bored with a perpendicular canal. The canal was filled by a brass piston, which could be moved up and down, and fixed in the cylinder at any height by means of a screw. The lower end of the piston was provided with a vice, wherein to fix the strips of tissue to be examined. The bottom was immovably fixed to the box; through the opening in the bottom passed the steel rod with a hook at each end. The hook in the upper end was attached to a second vice, holding the lower end of the strip of tissue, and that on the lower end held the scale for the weights. The feet of the tripod were provided with screws for keeping the instrument level. Beside this camera was placed a cathetometer. This cathetometer had a modification by means of which the adjustments of the telescope could be counted on the cathetometer, and the glass scale, which in Langer's experiments was placed between the telescope and the box, was thus rendered unnecessary. Thus the whole of my apparatus consisted of two parts, and therefore it was not only more stable, but rendered the performance of the experiments considerably easier.

The strips bearing the scars were prepared for examination in the following way: the scar was excised, together with the

surrounding skin, and separated with the cellular and adipose tissue from the underlying fascia. Then it was laid on a wet glass plate, the external surface downward, and on the internal surface were poured some drops of water, to make the light cellular tissue float. The cellular tissue was seized cautiously with small forceps, and cut off with small scissors with curved blades. The cellular tissue was removed as far as it could be easily seized by forceps, the solidity of the tissue of the scar being so great that it could not be so seized. By so doing, after some practice, I could completely remove the cellular tissue, which could not be done by mere separation with the scalpel. Moreover, the latter method is uncertain, for the blade of the knife may easily injure the tissue of the scar itself and so render it unfit for experiments. When this was done the strip was measured and transferred to a thick cushion of wet filtering-paper, and by pressure of the edge of a sharp razor a uniform strip could easily be cut.

In the same manner the strips of skin were prepared. The cellular tissue was removed from the internal surface of the skin down to the region of the hair follicles. But the cellular tissue was easily removable only from thin skin. From fat skin I used to remove only a thin layer of the fat tissue without penetrating far, the tissue of the skin being very soft and liable to be injured. Before excising the strips the skin was pricked all around, in order to ascertain the direction of the cleavage.

On both the marked ends of the strip, pins one cm. in length were stuck.

But, after all these manipulations, the strip is stretched, and the length, taken at 0 weight, is not the right one. To attain the normal length, without any weight, the strip, before the experiments, was put in a wet space under a bell-glass for twenty or thirty minutes. The strip was then fixed with the upper vice, the length taken by cathetometer, the lower vice with the steel rod and scale attached to the lower end, and the length taken again.

The strip of tissue was so fixed in the camera, that the plane of its exterior surface coincided with the vertical plane of the

axis of vision. The intersecting points formed by pins and the exterior surface of the strip were taken for the points of observation. The intersecting point of telescopic threads, when experiments were in progress, coincided with the points of observation. To prevent the drying of the strips, a wet sponge was always placed in the bottom of the camera.

The length of the strips was generally equal to about 15 mm., the breadth to 5 mm., and the thickness was each time taken by compasses in several places. For the unit of the weight, 5 grammes was adopted. The weights employed were: 5, 10, 25, 40, 50, 60, 100 grm., and some of these were employed several times. The lower vice with the steel rod was equal to 5 grm. The scale was of the same weight. When the experiment was finished, the strip was usually left in the camera for some hours, with a weight of 5 grm. attached or without it, and the length taken.

I. Two series of experiments were undertaken for examination of the *extensibility:* (1) an *uninterrupted extension*, the weight being added every three minutes; (2) *extension with repose:* the weight attached for three minutes, then the weight taken off for two minutes (the lower vice with the steel rod remaining fixed to the lower end of the strip), the scale with the higher weight again fixed, again taken off, and so on.

The examination of the extensibility of the skin gave the following results:

The most considerable lengthening follows the action of the first 5 grm. weight. Upon the second addition of the 5 grm. it is very much less, and upon the addition of the sixth 5 grm. weight it is about equal 0.1 or 0.2 mm. This decrease of lengthening is more gradual when compared with the elongation calculated for every 5 grm. of weight.

A piece of skin moderately fat; uninterrupted extension, a weight being added every three minutes; the strip being excised parallel to the cleavage from the right posterior extremity. The thickness = 2 mm.

Weight in Grammes.	In millimetres.			Weight in Grammes.	In millimetres.		
	Elongation.	Difference.	Difference for 5 Grammes.		Elongation.	Differ'ce.	Difference for 5 Grammes.
0	15.5			70	24.5	.1	0.050
5	21.9	6.4	6.400	80	24.6	.1	0.050
10	22.7	.8	.800	90	24.7	.1	0.050
15	23.1	.4	.400	100	24.8	.1	0.050
20	23.4	.3	.300	125	25.0	.2	0.040
25	23.6	.2	.200	150	25.2	.2	0.040
30	23.8	.2	.200	175	25.3	.1	0.020
35	23.9	.1	.100	210	25.5	.2	0.028
40	24.0	.1	.100	310	25.9	.4	0.020
45	24.2	.2	.200	410	26.2	.3	0.015
50	24.3	.1	.100	510	26.6	.4	0.020
60	24.4	.1	.050				

In the majority of the experiments the strips lengthen more at the first action of 5 *grm. than at all the succeediny weighings taken together.* In this table, for instance, the elongation from 5 grm = 6.4 mm., and from all the following taken together = 4.7 mm.

The law deduced by Langer, for the human skin, that *the transverse strips* (excised in a direction perpendicular to the cleavage), *at the action of one and the same weight, lengthen more considerably than the longitudinal* (parallel to the cleavage), *applies also to the skin of the dog.*

The average elongations of five longitudinal and five transverse strips, originally fifteen mm. long, are—

Weight in grammes.	The elongation of longitudinal strips.	The elongation of transversal strips.
5	20.5	21.3
30	22.7	23.6
510	25.1	26.6

The successive calculation of elongations for every five grm. gives us a very precise idea of the course of elongation during the experiment, and enables us to express it in a tabular (graphical) form. All experiments give one common result—that the elongation is very great at the commencement of extension, but that after this it diminishes rapidly. At the first

extension it is expressed by the units; at the second, and always at the third, it is removed to the first decimal figure, then to the second, and finally, with a weight of 510 grm., even to the third.

The (graphical) lines (see Pl. III.), expressing the course of elongation at the successive extensions, exhibit a curved direction only at the commencement of extension, and are modified into right lines as soon as they cross the ordinate of 25–35 grm. The difference between the lines expressing the courses of extension of longitudinal and of transverse strips may be easily seen, the transverse making a greater initial curvature than the longitudinal strips.

We must distinguish, in the examination of all sorts of organic tissue, including the tissue of scar, between the *initial* and *final* elongation: that is, that the weight, if small at first, modifies only the disposition of integral parts of the tissue. The fibres and bundles of the tissue (integral parts) being loosely interwoven and cemented together, the elongation from one and the same weight is greater than when they are united solidly. The weight, if added continually, not only modifies the primitive disposition of fibres and bundles, but extends them, *i. e.*, acts upon their physical property of extensibility. Therefore the first action of weight is mechanical, and the second is physical.

As the tables and *curved lines* (N.B.) show, the limit between the initial and final elongations of the skin of the dog may be placed between the extensions of (by) 15 and 20 grm. Beyond this limit the curved lines of longitudinal and transversal strips become parallel and rectilinear, and the elongations of the strips do not decrease rapidly, but become more proportional. The weight beyond this limit does not transpose and straighten the fibres and bundles any more, but acts upon their extensibility. From the lines drawn in Pl. III. one can easily see that the physical action of the weight remaining the same in both strips, the weight acts as a mechanical agent more upon transverse than upon longitudinal strips.

Sometimes, after repeated additions of equal weights, the irregularities of the elongation occur, *i. e.*, in the course of an

experiment from the addition of the weight the strip lengthens less than from the preceding and succeeding weights, or does not lengthen at all. Such irregularities are usually met in all experiments with organic substances. They are denoted in the tables by italic figures.

The elongation of the *scar* from the extension is, like that of every yielding of organic tissue to the weight, the sum of the elongations resulting from the transposition and straightening of the fibres, and from the action of force upon the extensibility of the fibres themselves.

For the determination of the different relations of extensibility I shall employ only the average figures. At any rate, they will be nearer the truth than the data drawn from a single experiment. For the determination of the extensibility twenty-one scars were examined.

1. *The initial elongation of the scar is far less than that of the skin.* This is the chief point of difference in their extensibility. The elongation of the strip of skin, as has been shown above, from the first addition of 5 grm., is greater than the sum of all succeeding elongations. But it is not so with the initial elongation of a scar. In the majority of cases, it is only equal to the sum of a few succeeding elongations. Sometimes it is even only equal to, or less than, the next elongation. From 35–40 grm. the elongations begin to be more analogous to those of skin; but the sum of the elongations of the scar is nevertheless smaller than that of the skin.

A very well nourished dog: age of scar eighty-four days; form rectangular; the long sides of the rectangle parallel to the cleavage; from the right anterior extremity; breadth of the strip 5 mm.; thickness 3.5 mm. Uninterrupted extension by the addition of weights every three minutes. (See Table A.)

The next calculations show that the *average extensibility of the skin is greater than the average extensibility of a scar; the greatest difference is at the commencement, and it diminishes with increasing extension.* The average figures of three extensions taken are given in Table B.

The course of the diminution of extensibility, as the fourth column shows, allows of the conclusion, that, if a still greater

weight were added, the difference between the extensibilities would have been still smaller, *i. e.*, the total difference depends

TABLE A.

Weight in grammes.	In millimetres.			Weight in grammes.	In millimetres.		
	Elongation.	Difference.	Difference for 5 grm.		Elongation.	Difference.	Difference for 5 grm.
0	14.4			70	16.7	0.1	0.050
5	14.8	0.4	0.400	80	16.8	0.1	0.050
10	15.2	0.4	0.400	90	16.9	0.1	0.050
15	15.4	0.2	0.200	100	17.0	0.1	0.050
20	15.7	0.3	0.300	125	17.1	0.1	0.020
25	15.9	0.2	0.200	150	17.2	0.1	0.020
30	16.1	0.2	0.200	175	17.3	0.1	0.020
35	16.2	0.1	0.100	210	17.4	0.1	0.014
40	16.3	0.1	0.100	310	17.7	0.3	0.015
45	16.4	0.1	0.100	410	17.9	0.2	0.010
50	16.5	0.1	0.100	510	18.0	0.1	0.005
60	16.6	0.1	0.050				

only upon the difference between the initial extensibilities, and if the initial elongation of skin and scar were equal, probably we should have obtained the analogy in final figures of the fourth column.

TABLE B.

Weight in grm.	Av. elong. of skin.	Av. elong. of scar.	Relation of elong. of skin to that of scar, which is supposed = 1.
5	5.94.....	0.88	6.75 : 1
30	8.17.....	2.15.....	3.80 : 1
510	10.90.....	4.30.....	2.54 : 1

We can only approximately fix the limit between initial and final extensibility of the scar. In accordance with the above explanations, we can assign for the limit the part of the curve as far as it shows a bow-shaped direction; thus the final extensibility will be expressed by the remaining part of the curve with a chiefly rectilinear direction, *i. e.*, between the extensions by 20–40 grm. The difference between the initial and final extensibilities in the scar being far less than in the skin, in that ratio the initial part of the curve has a very shallow curvature; the whole curve nearly approaches a right line.

2. I then proceeded to determine the *relation between thickness and elongation of scars.* The series of numbers, written in decreasing order, and expressing the thickness of scars, I divided into two halves, and calculated the average thickness for each half. For the first half it was equal to 3.5 mm. and for the second 1.7 mm. I then took from the tables the elongations of the scars taken into account, calculated the averages, and finally calculated the average elongations in relation to the unit for which the length of the strip at 0 weight was taken. The next calculation was made for longitudinal and oval scars.

Average thickness of scars.	Average elongations compared with initial length, which is supposed = 1.			
	5 grm.	10 grm.	30 grm.	510 grm.
3.5 mm.....	1.053	1.093	1.153	1.326
1.7 mm.....	1.066	1.093	1.126	1.240

We must understand this table thus: 5 grm. extend thin scars most; 10 grm. extend both sorts of scars equally; but 30 and 510 grm. extend thicker scars most, and, as is easily seen from the table, *the total extension is greater in thick, but the initial is greater in thin scars.*

Such seemingly strange correlation between the thickness and elongation has, however, its cause in the anatomical data: the thin scars were mostly old and the thick young. The former, consisting of solidified fibres, present to the extension some analogy with skin, *i. e.*, the difference between their initial and final elongations is expressed relatively clearly. It is not so in the young scars. Having for their integral parts cells and gelatinous interstitial substance, they do not present any substratum for the weight, which, therefore, operates at once on the extensibility of the whole substance of the scar, and so initial extension does not exist. Thus, this law applies only to cases where scars of different histological maturity (age) are compared. This is also evident from,—

3. *The more advanced is the histological maturity of the scar, the less is its extensibility.* The average elongations are

calculated in the same way in this as in the preceding table, only oval and longitudinal scars being taken into account.

Average maturity of scar.	Average elongations.			
	5 grm.	10 grm.	30 grm.	510 grm.
46	1.066	1.106	1.166	1.326
63	1.053	1.080	1.133	1.313
84	1.046	1.073	1.113	1.213

This law depends solely upon the anatomical metamorphoses of scars. Corresponding in time to the occurrence of these methamorphoses, the scar modifies its extensibility. When, for instance, a scar matures slowly, in consequence of protracted suppuration or any other causes, its extensibility will be that of a young scar, notwithstanding its greater age. In a word: *each degree of histological maturity of the scar has its own extensibility.*

In order to get more or less positive data in relation to the *contractility* of scars, and especially to compare the contractility of scars and skin, on the one hand, and, on the other, the contractility of the old and young parts of scar, it would be best to give the scar, for some time immediately after its extension, an opportunity to contract without any weight. But it is quite impossible to accomplish this. It would be necessary after each extension to unscrew the lower vice, and then: (1) we should not be able to experiment in precisely definite time; (2) the scar, yielding to the different manipulations and accidental forces, would stretch, and thus we should have a false unit of comparison. The following method was the only rational one that seemed to me to be applicable for this purpose. The scar prepared as shown above, its full length divided into three equal parts (two external and one internal): one external part was cut off, and at the limits of two others were placed three pins. Finally, the strip was taken in the vices, all preceding manipulations and precautions being observed. In this way, experimenting on one strip I could get the data for two states of maturity of scar. The course of experiments was somewhat different from the preceding ones. The scar was extended during two minutes (excursion of the strip downwards), the rest

with lower vice (5 grm.) during 5 minutes (excursion of the strip upwards), and so on. In some experiments extension lasted three minutes and rest with lower vice 4 minutes. The following weights were employed: 0, 5, 15, 25, 50, 110, 160, 210. Excursions of both parts of the scar were noted in the end of extension and in the end of rest.

By so doing I obtained the numbers for the elongations and contractions of both parts of the scar which were extended by the same weight and measured in the same time.

The strips of skin were examined in the same way.

The number of scars examined in this direction was nine; but for the calculation of average data I admitted only the data of seven scars, the experiments with the remaining two failing to be reliably precise.

The data in the table C. are represented directly from the experiment, without any change. The scar excised from the right anterior limb; parallel to the cleavage; its age, eighty-four days; the thickness of the young part = 2.5 mm; of the old = 2 mm. The extension by weight, 3 minutes; and rest with 5 grm., 4 minutes.

TABLE C.

Young part of scar.			Old part of scar.		
Weight in grammes.	Length in millimetres.		Weight in grammes.	Length in millimetres.	
	Excursion downward.	Excursion upward with 5 grm.		Excursion downward.	Excursion upward with 5 grm.
0	10.9		0	10.4	
5	11.3		5	11.1	
15	11.7	11.6	15	11.3	11.2
25	11.9	11.7	25	11.3	11.2
50	12.3	11.9	50	11.3	11.3
75	12.3	12.0	75	11.5	11.3
110	12.4	12.0	110	11.6	11.4
160	12.6	12.1	160	11.7	11.5
210	12.6	12.2	210	11.9	11.4

It is desirable, for the greater precision of the final deductions, to have the data for the absolute contractions. But the substitution of the data which express contractions of the strip

during the rest with 5 grm. weight, by those which we should observe if we had excluded the action of 5 grm., is possible only by calculation. For this purpose the number of elongation from five grm. was added to the number of each excursion upwards. Suppose, for instance, the length of the strip when it finished its excursion upward with 5 grm. is equal to 11.6 mm., and the elongation from the first 5 grm. is equal to 0.4, then the absolute length of the strip (at 0 weight) is equal to 11.2, for $11.6+0.4=-11.2$.

The next table, D, is the substitution for the table C, the excursions upwards with 5 grm. substituted by imaginary upward excursions without any weight. In order to enable the reader to compare both parts of the scar, the initial length of the old is supposed to be equal to the length of the young part, and the data of the old part are calculated in ratio to this supposed initial length.

TABLE D.

Young part of scar.					Old part of scar.				
Weight in grammes.	Length in millimetres.				Weight in grammes.	Length in millimetres.			
	Excursion downward.	Excursion upward at 0 weight.	Elongations.	Contractions at 0 weight.		Excursion downward.	Excursion upward at + 0 weight.	Elongations.	Contractions at 0 weight.
0	10.9				0	10.9			
5	11.3		0.4		5	11.6		0.7	
15	11.7	11.2	0.4	0.5	15	11.8	11.0	0.2	0.8
25	11.9	11.3	0.7	0.6	25	11.8	11.0	0.8	0.8
50	12.3	11.5	1.0	0.8	50	11.8	11.1	0.8	0.7
75	12.3	11.6	0.8	0.7	75	12.0	11.1	0.9	0.9
110	12.4	11.6	0.8	0.8	110	12.1	11.2	1.0	0.9
160	12.6	11.7	1.0	0.9	160	12.2	11.3	1.0	0.9
210	12.6	11.8	0.9	0.8	210	12.4	11.2	1.1	1.2

Thus, having the absolute contractions for all the seven scars taken into account, and replacing them by the average data, I was enabled to construct simpler and more instructive tables. Finally, I simplified them still more by calculating the absolute contractions in relation to each preceding elongation, for which 1 was taken as a basis. The calculation was of two kinds:

1. Determining the relation between each average contraction and each corresponding average elongation, taken for 1. Suppose the extension is made by 25 grm., then I determine the corresponding average elongation and contraction, and divide the contraction by the elongation. 2. Determining the relation between the average sum of contractions and the average sum of preceding elongations (taken=1). If it is required, for instance, to determine this relation for 25 grm. weight, I sum up the average elongations from 15 and 25 grm., as well as the corresponding contractions, divide both sums by 2, and finally the second by the first sum. If there were three weightings, both sums must be divided by 3, and so on.

(1.) The table of average contractions after each corresponding elongation taken for 1.

Weight in grammes.	Average contractions.			
	Of skin.	Of scar.	Of the young part of scar.	Of the old part of scar.
15	0.91	0.76	0.71	0.81
25	0.96	0.74	0.62	0.86
50	0.95	0.88	0.83	0.92
75	0.95	0.93	0.92	0.93
110	0.97	0.92	0.90	0.94
160	0.98	0.95	0.94	0.95
210	0.98	0.93	0.92	0.93

The column of the average contractions of the *skin* shows that the degree of contractions fluctuates between 0.91 and 0.98, the difference being 0.07; the first contraction is the least; the difference between the first and the second contractions is the greatest, further it diminishes rapidly. Thus, the contraction is the smallest after first extension, and when the elongation is but the result of extension of fibres themselves, the contraction is greater.

The third column of contractions of *scars* is somewhat different. The difference between the first and last contractions is equal 0.17. The smallest contraction occurs after the second extension. The difference between the contractions diminishes in proportion to the increasing weight.

By comparing the columns of contractions of the *skin* and *scar*, it is evident that, *being extended by the same weight, the skin contracts more than the scar when the weight is removed.* Putting down the differences between the contractions of skin and scar in the same order as they follow in 2d and 3d columns,

0.15—0.21—0.07—0.02—0.05—0.03—0.05,

we conclude that, though the *difference is greater at the commencement of extension than further on, yet there is no regularity in the decreasing series of figures.*

As to the relations between the *scars of different maturity*, they are expressed thus: *the contractions of the young are smaller than those of the old scars. The difference decreases with increasing weight, but not regularly.* The differences between the figures of the columns 4th and 5th are:

0.10—0.24—0.09—0.01—0.04—0.01—0.01.

There are considerable irregularities in the column of contractions of the young scar, and in order to get any precise data we must employ average figures from many experiments. But, nevertheless, the smaller contraction of the young in comparison with the contractions of the old scars is too evident.

II. We shall determine more precisely the contractility of the tissue, if we generalize still more the data by comparing the average sums of separate contractions.

Table of average sums of contractions in relation to average sums of corresponding elongations which are supposed equal to units.

Weight in grammes.	Average sums of contractions.			
	Of skin.	Of scar.	Of the young part of scar.	Of the old part of scar.
15	0.91	0.76	0.71	0.81
25	0.94	0.80	0.77	0.83
50	0.95	0.83	0.79	0.86
75	0.95	0.86	0.82	0.88
110	0.95	0.86	0.83	0.89
160	0.97	0.88	0.86	0.90
210	0.98	0.89	0.87	0.91

Average sums of contractions of skin are greater than those of scars, i.e., *the elasticity of the skin is more complete than that of the scar.* The difference between separate sums of contractions of the skin and of a scar diminishes with the increased extension.

The differences between the figures of 2d and 3d columns are:

0.15—0.14—0.12—0.09—0.09—0.09—0.09.

The average sum of the contractions of the old part of a scar is greater than that of a young, i.e., *the elasticity of the old scar is more perfect than that of the young.* The difference between separate sums of contractions of the old and young scars diminishes with increasing extension. The differences between the figures of the columns 4th and 5th are:

0.10—0.06—0.07—0.06—0.06—0.04—0.04.

III. If a tissue, left to itself after considerable extension, contracts to its initial size, we are right in concluding that it possesses a perfect elasticity. Langer's investigations on the human skin show, that after the addition of 510 grm. the strips of the skin contracted to the initial length 25 mm. in 24 hours. On employing the same weight, the skin of a dog never contracted after the extension to its initial length. Probably this contradictory result to Langer's statement was owing to the anatomical differences between the human and dog skin, or to the smaller size of strips that I experimented with. In experiments in which I employed only 210 grm. the strips contracted in 24 hours to their initial length.

By experimenting with the *skin* of a dog, I could verify the fact stated by Langer, that the longitudinal strips contracting after extension approach to their initial length more than the transverse. The weight displaces the fibrous arrangement of the transverse strips more than that of the longitudinal.

The strips of a *scar* under the same conditions contracted a little more, but did not reach their initial length, and fluctuated

between 15.3 and 16.3 mm. After less extension they contracted very often to their original length.

The relation between final contractions of the young and old scars expressed itself by the following numbers:—

Rest after experiments,	2 hours.	24h.	24h.	24h.	48h.
Young part of scar,	15.8.	15.7	15.8	15.4	16.0
Old part of scar,	15.6.	15.2	14.8	16.2	15.0

From these figures we can conclude again that the extensibility of the old scars is more complete than that of the young.

The different position of scars in relation to the cleavage of skin did not exhibit any influence on their elasticity.

Plate III.

The curves of extensibility. The abscissas denote extensions by the weight; the ordinates, the elongations of strips.

VERATRUM AND VERATRIA AS PARASITICIDES.

BY EUGÈNE PEUGNET, M.D.,

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VERATRUM album has long had, in Europe, a popular reputation in the treatment of pediculi and scabies; it is applied locally in the form of decoction or infusion.

Veratrum viride has a similar reputation in this country, hence its common name, "itch-weed."

Dr. Lilienfeld* recommends the tincture of veratrum album (prepared from the fresh root) for the removal of "maculæ hepaticæ;" he first softens the skin by means of warm soapsuds baths, then washes the spots every night before retiring with the tincture, and in the morning washes and rubs them with a piece of flannel wet with warm soapsuds. The spots begin to fade after three days' treatment, and soon disappear completely. Owing to Zeilenfeldt's strong indorsement of it in the treatment of "tinea versicolor," Spenglés† subsequently made use of it in three cases: the 1st, a young woman, æt. 22, with the eruption on her back, neck, and under the arms, extending to the breasts; 2d, a theological student, with an extensive eruption on the abdomen; 3d, a clerk, with his chest and abdomen covered with it. They all three applied the tincture daily, and all recovered in an average of eight days.

Since that time it has been pretty extensively made use of, although the more recent writers and authorities on dermatology do not allude to it. Our German brethren in this city, being familiar with its success in the treatment of tinea versicolor, have made use of the tincture of veratrum viride in lieu of it, meeting with equal success. Amongst others, Dr. Jacobi, who informs me that it rarely requires more than three applications to cause it to disappear.

In a paper read before the New York County Medical Soci-

* *Bull. Génér. de Thérap.*, Jan. 30th, 1850.

† *Neue medicinische und chirurg. Zeitung*, 1851.

ety* I alluded to my experiments, confirming the views of Scattergood and Richardson as to the identity of the alkaloid veratroida in the two varieties of veratrum, therefore came to the conclusion that the veratroida is the active parasiticide in veratrum. In order to ascertain whether my view was well-founded I selected two cases of tinea versicolor, one of which was very aggravated. A married lady, whose entire face was covered with a complete mask of it, and had been so for years, resisting the alkaline as well as the carbolic and sulphurous acid treatment; the only result in the three forms of treatment was an irritation and inflammation of the derma, in consequence of which she refused for several years to undergo any further treatment. At length I prevailed upon her to make use of the following prescription:—℞ Veratroidæ (viride) gr. iij.; sp. vini rectificat., glycerinæ, āā ʒ ss. M. Ft. lotio—to be applied at night with a piece of flannel. After the fifth application the disease disappeared without causing any irritation of the derma.

In the second case, also a married lady, in which the disease was not as extensive, I made use of the veratroida (album), meeting with equal success.

These two cases fully confirm the value of veratrum as a parasiticide, and demonstrate that I was correct as to the veratroida's being the active principle in which resides that virtue. Whether the jervina of the album, or the viridia of the viride, which I consider identical, have a similar power, I have been unable to investigate, but I doubt it. As the veratroida is not officinal, the tincture of either of the varieties of veratrum will have to continue in use; but I believe with Lilienfeld that they should be prepared from the fresh root.

However, we have in the veratria (sabadilla) a more active congener of the veratroida, which several chemists have considered identical with it; but as it is a well-known aphorism in chemistry, that two substances must respond to every test in order to be identical, and as they only respond to one, Trappés', and differ essentially in the nitric and sulphuric acid tests, they cannot be so. I have made use of the following prescription in

* *Medical Record*, May 1, 1872.

two cases of parasitic affections:—℞ Veratria (sabadilla), gr. iij.; acidi aceti dil., ♏x.; aq. rosaceæ glycerinæ, āā ʒ ss. M. Ft. lotio.

The first was a case of tinea versicolor on the chest, which disappeared after the third application. The second, one of aspergillus in a young lady, who had been suffering since childhood with an offensive discharge from the right ear, accompanied with more or less pain and almost total deafness of that ear. On cleansing and examining it I ascertained that she was suffering from chronic otitis externa, and that there was a dirty white membrane blocking the meatus, which I removed with the forceps, and on examination presented the appearance of a partially formed cast of the external auditory canal. The canal was very much inflamed and constricted; it was impossible to see the membrana tympani; but a small camel's-hair pencil could be forced through the constriction, and a weak solution of nitrate of silver applied. The patient was directed to syringe her ear daily with carbolized water; on her return, three days after, I was very much surprised to find a white membrane again blocking the passage; removing it, on further examination it proved to be aspergillus. As the patient lived in Brooklyn, I only saw her twice a week. The treatment was pursued for six months, the aspergillus constantly reappearing, the constriction gradually subsiding, the membrana tympani becoming visible and presenting an inflamed appearance; sometimes the solution was varied, as it seemed to lose its effect: either the nitrate of silver, sulphate or chloride of zinc applied. As this condition persisted, and despairing of getting rid of the aspergillus, I concluded to try an antiparasitic, and made use of the above-mentioned solution of veratria; after the fourth application the aspergillus ceased to reappear; the only unpleasant symptom induced was a tingling and pain, which lasted for about an hour after each application. The otitis has subsided and the hearing of the right ear is completely restored. There are two points of interest in this case: 1st. The aspergillus, if not the original cause of the otitis, certainly aggravated it. 2d. That removal of the aspergillus and application of astringent solutions is not always sufficient to prevent its reappearance, but requires a parasiticide to effectually destroy it.

It is evident from this that we have in veratria a parasiticide of greater power than any at present in vogue, and which in the above-mentioned solution would not prove objectionable to our over-fastidious patients, which in these days, when empiricism is so rampant, is an important point not to neglect.

I believe that veratria might be very efficacious in the treatment of tinea favosa and tinea tonsurans; applied directly to the shaved scalp after it has been thoroughly cleansed and softened, without depilation it would probably destroy the achorion Schönleini and the tricophyton tonsurans as effectually, and save our patients a rather painful treatment, which is far from being as successful as its warmest advocates would have us believe, even when executed by the most skilful dépilateurs; although, when done in time, it no doubt prevents the complete atrophy of the follicle, by the irritation and stimulation induced.

However, I have only had the opportunity of trying its efficacy in but one case of tinea:—

A boy, æt. 13, presented himself for treatment at the dispensary; he had been affected with tinea favosa for seven years. The vertex for about a diameter of three inches was almost hairless, and most of the hair-follicles obliterated, but around the periphery of the bald spot there were numerous characteristic cup-shaped crusts, with a hair in the centre of each; the remaining hair was abundant and healthy. I had the hair shaved close to the scalp, the latter washed every night with warm soft soapsuds and thoroughly dried, the solution of veratria rubbed in, and the scalp washed again in the morning with soapsuds. After two weeks' treatment the improvement was remarkable. This case has not been a sufficient length of time under observation to judge of the efficacy of the treatment; but nevertheless it is of sufficient clinical and practical interest to warrant the further trial of veratria as a parasiticide.

Clinical Contributions.

A CASE OF SYPHILITIC CHOROIDITIS WITH CIRCUMSCRIBED EXUDATION IN THE CHOROID; WITH REMARKS.

By T. R. POOLEY, M.D., OF NEW YORK.

It is well known that in many syphilitic inflammations there is a tendency to a peculiar kind of formation known as gummy tumors, gummy tubercles (gummuta) of Virchow. The condylomata which occur in the iris in syphilitic iritis, are (according to Colbert) to be considered as belonging to the same class of formations. Condylomata, as all ophthalmic surgeons know, not infrequently occur in the course of syphilitic iritis. In fifty cases of this disease, which I am at present engaged in analyzing, condyloma was noted in nine cases. It seems quite rational to suppose that similar organized exudations may take place in other tunics of the eye than the iris. Indeed Bader* found the nodules of lymph resembled (in one case of syphilitic choroiditis which was examined microscopically) those taken from the iris in syphilitic iritis.

I will venture to say that in the case which I am about to describe, the exudation was of the same class as those which occur in the iris and elsewhere in syphilitic inflammations. And as such circumscribed local exudations in the choroid are sufficiently rare, I thought the case of sufficient interest to warrant publication.

W. M., æt. 30, consulted me March 30th, at the instigation of his physicians, Drs. Draper and Seguin. Two years ago he contracted a chancre, which was from four to six weeks in healing. He had no symptoms of a secondary nature until six months later, when he had several ulcers in his throat. He consulted Dr. Draper, under whose care he has been more or less ever since. The ulcers were found by him to be mucous patches, but,

* Bader. *The Human Eye: Its Natural and Morbid Changes*, p. 375.

so far as I can learn, he has had no eruption or other secondary symptoms except some enlargement of the cervical glands. Three weeks ago the eye affection, for which I saw him, first made its appearance. The first thing he observed was a thin film before his right eye, which gradually grew thicker, and some time later he noticed a crescentic-shaped scotoma in the upper part of his visual field. On examination I found him myopic $\frac{1}{3}$ in either eye, with S=$\frac{20}{100}$ in the right and $\frac{20}{70}$ in the left eye. The visual field measured by Förster's perimeter was found to be contracted above and below. It measured 60° on the temporal, 40° on the nasal side, 15° below and only 5° above. Ophthalmoscopic examination of the right eye showed considerable diffuse as well as some floating opacities in the vitreous humor, rendering it somewhat difficult to obtain a distinct view of the fundus; by dilating the pupil with atropine, however, the following details were made out:—

There was a large, clearly defined staphyloma posticum. The optic disk was uniformly red, and a little removed from its outer and lower border (inverted image) was a bluish-white exudation, about twice the diameter of the disk. Its borders were sharply defined, and the retinal vessels could be distinctly traced over it without being in any way altered in their course. The left eye also showed the characteristic changes of myopia, but was otherwise healthy.

I advised the abstraction of blood from the right temple with Heurteloup's artificial leech, and the use of mercury in some form. The same evening the leech was applied, calomel in three-grain doses given every few hours, and he was advised to remain quiet in a dark room. March 27th—The eye was clearer, there was less opacity of the vitreous, but more floating bodies. The gums were slightly affected—exudation smaller and the visual field wider—S=$\frac{20}{70}$, scotoma not so dense. The dose of mercury decreased, and iodide of potassium added, with chlorate of potash as a gargle. April 4th—The vitreous decidedly more opaque; exudation is, however, still decreasing; visual field again contracted above and below; scotoma not so dense, and greenish in color. 19th—The increasing opacity of the vitreous prevented my making out the details of the fundus—S=$\frac{20}{100}$; leeches ordered to temple. May 16th—He no longer notices the scotoma, but he complains of a distortion of objects, and says that straight lines have a wavy outline—(metamorphopsia). The vitreous is still rather opaque. I could no longer find the exudation, but the haziness of the vitreous embarrassed my view considerably. The field of vision was only slightly contracted upwards. With the proper glass for his myopia S=$\frac{20}{100}$. The patient is still under treatment, making occasional visits to my office.

I should have preferred putting off the publication of his case longer, but it may be considered complete, as the exudation has quite disappeared. When the vitreous shall have become

clear enough to enable me to discern more clearly the details of the fundus, I shall expect to find an atrophic spot in the choroid marking the site of the exudation.

Choroiditis usually occurs in the secondary stage of syphilis, between the first six months and the third year, and is only occasionally observed in the tertiary stage. The most frequent form of specific inflammation of the choroid is the so-called *choroiditis disseminata*, which is characterized by the occurrence of numerous small exudations, situated in the periphery of the fundus. Isolated exudations are more rare (not so often attributed to syphilis), and are usually situated between the optic disk and the macula lutea.

The distortion of objects (metamorphopsia) is a symptom not infrequently noticed in exudations in the choroid, and shows that the exudation has pressed upon the inner layer of the retina, which lies immediately in connection with the choroid, and is the percipient element of the retina, in such a way as to compress the rods and cones and partially destroy them. The same pressure longer continued would destroy the retinal elements and give rise to a permanent scotoma. The fact that such was not the case in our patient is no doubt due to the rapid absorption of the exudation brought about by the mercury, before it had gone on to such an extent as to entirely destroy the percipient elements in its locality. Another fact worthy of notice is that, as the exudation diminished, *pari passu* the vitreous became turbid. This was due, in all probability, to the débris of the same finding their way into the vitreous chamber. It is quite common to observe, in the clearing away of a condyloma of the iris, that as it decreases in size the anterior chamber becomes more or less occupied by its broken-down and decaying remnants. In a similar way the exudation here found its way into the vitreous.

The differential diagnosis between an exudation in the retina rather than the choroid was made by observing that the retinal vessels passed over it, and were not in any way interrupted or rendered indistinct in their course. Again, blood effusions are generally present when the exudation is in the retina. It is worthy of notice, that the eye disease was one of the earliest

manifestations of a secondary character; no other symptoms except mucous patches in the throat and adenitis having been noticed. It is far more usual, as the analysis of syphilitic affections of the eye has taught me, for other secondary symptoms to have occurred first, or to be coincident with the eye lesion.

One word as to treatment.—It is obvious that when we have to deal with an exudation in such a locality as this, the safety of our patient depends upon the rapidity with which absorption can be produced, and I know of no more efficient and reliable absorbent than mercury.

CLINICAL OBSERVATIONS UPON SYPHILITIC DISEASES OF THE NERVOUS SYSTEM.

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The prominent part which syphilis plays in the causation of diseases of the nervous system has long been recognized, not only by modern, but also by ancient writers. In a very interesting work upon diseases of the nervous system, a very able author has remarked, that when he sees a patient under thirty years of age suffering frem paralysis of the lower extremities he always suspects the existence of syphilis.

Although there is perhaps more truth in this assertion than would at first sight appear to be the case, nevertheless this remark is much exaggerated, and should be somewhat modified in order to be true, inasmuch as we find a large number of patients under thirty years of age afflicted with paraplegia who have never contracted syphilis, nor have they inherited it.

Syphilitic diseases, as a rule, give rise to hemiplegia and local paralysis much more frequently than to paraplegia, so that this author might have very happily extended his assertion so as to have embraced these affections. In all patients under forty years of age who have any form of paralysis whatever, it is al-

ways well to inquire and see if we can obtain a history of true syphilis.

In order to arrive at a satisfactory conclusion, however, in this respect, it is very essential that we should have sufficient data upon which to base our conclusions, for otherwise we have no right to attribute to syphilis any disease of the nervous system.

It is not every man who has a sore upon his penis, which is subsequently followed by a sore throat and an eruption, that has syphilis, any more than every man who has a cough and expectorates blood must necessarily have phthisis. In those cases where the facts are imperfect, and where we can obtain no additional evidence, even though the disease be mitigated or disappear under the influence of the iodide of potassium, we cannot justly consider syphilis as the cause without there is positive proof of the existence of that disease.

It has long been the habit of many physicians, when seeking for the cause of a disease which they are unable to find, to fall back upon that old bugbear, syphilis, as if that must necessarily be the cause when none in reality can be ascertained. Fortunately for medical science, the relation of cause and effect is becoming much more thoroughly understood, and we now appreciate the fact that the why and the wherefore are not always to be ascertained, and that where there is no proof of a disease none is supposed to exist.

Many writers who have devoted themselves to the study of syphilitic affections of the nervous system have noted certain phenomena which accompany that disease. Thus it has been said that a syphilitic disease of the brain which gives rise to hemiplegia is not ordinarily attended with loss of consciousness, and although this is so in the majority of cases, nevertheless the same fact is true in regard to cerebral hemorrhage, especially where the effusion into the substance of the brain is small in amount, and particularly when it does not implicate the gray matter. Loss of consciousness merely shows that the gray matter of the brain is involved, either directly or indirectly, by a derangement of function or by organic disease. We often meet with patients afflicted with cerebral disease who have never lost consciousness, and in a very large number of cases

this assertion will be found to hold true; consequently this fact alone would afford little or no proof of the existence of syphilis.

Then again, another writer lays great stress upon the point, that the motility is very much more affected in syphilitic affections of the brain accompanied by hemiplegia than the sensibility, which fact is undoubtedly true, but it is likewise also applicable to almost every form of hemiplegia which is the result of cerebral disease. In cerebral hemorrhage, in embolism, in thrombosis, and in a host of other cerebral affections which impair the power of one side of the body, the motility is generally more involved than the sensibility, and may be alone affected. If upon *post-mortem* examination we look to the site of the lesion, we will find that where the motor power is solely impaired the corpus striatum is alone implicated, whereas if sensibility be diminished or increased the optic thalamus is affected, either directly or indirectly. From which facts we can readily see that any lesion which involves to a greater or less degree either the motory or sensory tract, will produce a corresponding aberration in those parts of the body to which its fibres are distributed; so that to draw the deduction that a disease is syphilitic because motility is alone affected is starting with a true premise and reasoning very illogically. Even the local paralysis limited to a single muscle, or to a certain set of muscles, the headache, the aphasia, the loss of memory, the varied emotional disturbances, the mydriasis, which have been supposed to be diagnostic of syphilitic infection, and the impairment of the intellectual faculties which has been observed to follow syphilis, and upon which authors upon syphilitic affections have laid so much stress, are so often found associated with other diseases of the nervous system that it is impossible to place enough reliance upon these phenomena, so as to be able to diagnosticate a syphilitic affection from some other disease of the nervous system.

Although these manifestations by themselves furnish us little reliable information in support of the existence of this affection, nevertheless, when taken in connection with a true syphilitic history, they afford us corroborative evidence of the existence of that disease; consequently we must go back to the facts

which are afforded us by the history of the case, and when these are of such a nature as to reveal the symptoms of the action of the syphilitic poison upon the system, we have the true basis upon which to form a diagnosis.

It is not my intention in this connection to discuss more at length the different phenomena associated with the nervous system which arise as the results of syphilitic infection, but merely to detail the histories of two very interesting cases which have fallen under my observation, and to make some clinical remarks upon them.

CASE OF CEREBRAL HEMORRHAGE OF SYPHILITIC ORIGIN.

W. X., thirty-three years of age, a strong, robust man, a native of Ireland, and an upholsterer by occupation, has always enjoyed excellent health, and has been remarkably temperate in his habits. He has never had acute articular rheumatism, nor any other severe disease, excepting that which is undoubtedly the result of the poison of syphilis, nor is he predisposed to any affection of the nervous system, so far as he is aware, by any hereditary influence. When about twenty-three years of age, he had an indurated chancre, which was speedily followed by hard non-suppurating buboes. Then came in order sore throat, a coppery eruption all over his body, fever, alopecia, and at a later period there was enlargement of the glands in various parts of his body, together with periosteal inflammation of the tibial bones. He underwent a course of treatment for this disease, and after a time the symptoms disappeared, and he felt as well as ever, until about three years ago, when he noticed a slight impairment of hearing in the right ear, and after a while the left also became affected. This loss of hearing took place very gradually and progressively, so that after the lapse of about nine months he had become almost completely deaf in both ears. About the same time that his hearing first began to be impaired, he was seized with a severe pain in the head, which was not limited to one spot, but was diffused over the whole of the right side of the scalp, and evinced no tenderness or pain upon pressure; it was always more intense and lancinating at night than in the daytime. This pain in the head continued to occur at intervals until about the 24th of February, 1868, when it became unusually severe in character, and was accompanied with ringing in the ears, and other manifestations of disordered cerebral circulation, although not to such an extent as to materially interfere with his intellectual faculties. It might be stated in this connection, that Mr. X. has been subject, for many years, to frequent attacks of nasal hemorrhage.

February 24, 1868. At this period, as the patient was stooping over in the act of sharpening a knife, he suddenly felt weak and dizzy, and fell to the

floor; he arose, however, without assistance, but immediately became aware of the fact that he was paralyzed on the left side of his body. In a short time the paralysis became more complete, and the tactile sensibility was considerably diminished, but not to the same degree as the motility. The left lower extremity was much more affected than the upper, yet there was no difficulty of speech, no paralysis of the muscles of the face, of the tongue, nor of the eye, as these were found to be in a perfectly normal condition. There was not the slightest loss of consciousness, either during the attack or after it, although the patient felt a very severe vertigo during the time that his paralysis was increasing.

He was confined to his bed for a period of five weeks, after which he was able to sit up, and at the end of two months he could just move about a very little with the assistance of a strong cane. Improvement gradually followed for a time in the paralyzed limbs, and this was particularly noticeable in the arm, but after a while it stopped. His hearing had not improved, and the severe pain in his head still persisted, when he applied for admission to the Out-Door Department of the New York State Hospital for Diseases of the Nervous System, October 7th, 1870, at which time the patient was in the following condition:—

He is so completely deaf that he is totally unable to understand words, and can merely appreciate sound to a sufficient extent to have his attention aroused when spoken to in a clear, loud voice.

There is paralysis of the left lower and upper extremities only, as no other part of the body is involved. The impairment of muscular power in the arm is at the present time very slight in degree; he can use this limb for all the necessary purposes of life very well, nevertheless in executing fine complex movements he experiences much difficulty. The dynamometer shows a real loss of power in the left hand, while in the leg, however, there is a very great degree of paralysis; and although the patient can walk by means of a cane, yet it is with great effort. He has the regular characteristic walk of the hemiplegic, which in this case is very well marked; the foot is adducted and the toes drag, which shows that the peronei and extensor muscles of the leg are more especially involved than their antagonists. There is a coppery eruption which is at present quite apparent, and which extends over the whole surface of the body. The soft palate and uvula are wanting, and if this defect be not congenital it is undoubtedly the result of syphilitic infection; the remaining parts, however, are perfectly smooth, as if these organs had been removed by means of a sharp knife. At present there is hyperæsthesia on the diseased side, as evinced by the increased tactile sensibility and the increased sensibility to the electric current; the temperature is diminished; the muscular contractility is greatly impaired in the left leg, particularly in the peronei and extensor muscles, while it is very little affected in the left upper extremity; the bladder and rectum act in a perfectly normal manner and have lost none of their tone; the urine has

been examined, both microscopically and chemically, with a negative result; the lungs are healthy, but physical exploration of the heart shows the existence of anæmic murmurs at its base, and also in the large veins of the neck. The other special senses, excepting hearing and tactile sensibility, are normal. His intellect appears to be somewhat impaired, yet this fact may be due to the loss of perception of acoustic impressions, aided by the defect of a proper education. His memory is excellent, however. Ophthalmoscopic examination reveals the vestigia or remains of old iritis in both eyes; the vessels of the retina are small and straight, and the choroid of a rather pale hue, but the optic disks are in a perfectly healthy condition. Even at this period the severe pain in the head continues to recur, especially at night, but quite strong pressure upon the scalp on the affected side failed to cause pain.

The treatment of this patient has consisted in the application of the primary galvanic current to the head and to the paralyzed limbs until the latter became susceptible to the faradic current, which was then substituted for it, together with the internal administration of the saturated solution of the iodide of potassium, commencing with ten drops well diluted in water, three times a day, and gradually increasing by one drop daily until the quantity taken at each dose amounted to seventy-five drops.

October 16th. This patient's hearing has already commenced to improve, and the eruption has begun to disappear.

October 19th. The induced current has begun to act feebly, so as to slightly extend the toes and raise the heel of the left leg, which prior to this time would only respond to a strong galvanic stimulus. I now commenced the use of hypodermic injections of the sulphate of strychnia, the 32d of a grain at each dose; these were given three times a week *pro re natâ*.

October 24th. In addition to the foregoing treatment I prescribed the 16th of a grain of the bichloride of mercury, to be taken three times a day in the compound tincture of cinchona.

October 28th. As all the muscles of the leg respond to a weak faradic current, it is no longer necessary to employ the primary galvanic. This patient's hearing has so much improved that he can catch the general idea of a sentence when spoken to him in a clear bass voice.

November 1st. He heard the clock tick to-day for the first time since he lost his hearing; the eruption upon his skin has almost entirely disappeared, and the hyperæsthesia has markedly diminished. This case went on gradually and steadily improving, and when last seen, June 1st, 1871, his condition was as follows: his left arm had entirely recovered and he could use it as well as the right; his leg had very much improved, so that he could walk very well without a cane; his great toe, however, still caught the ground at times, especially when he was much fatigued, yet he swung his leg very little, comparatively speaking, and it was only now adducted to a very slight degree; his hearing had not improved in the least since the 1st

of November, although the patient had taken seventy-five grains of the iodide of potassium three times daily for several months, and even this amount so long continued had not produced iodism. All the muscles of the left leg respond very nicely to a weak faradic current; the nocturnal pains have entirely disappeared, and there is no eruption to be discovered upon any part of the body; his intellect is not very active, but this, in my opinion, has always been the case. This patient, although only thirty-four years of age, has the appearance of a man of fifty; his hair is gray, and his whole aspect denotes that of a person who has undergone great suffering.

This case is a good example of many that are met with in practice, and illustrates in a very clear manner the rupture of a blood-vessel on the right side of the brain, the clot involving both the corpus striatum and the optic thalamus. The attack came on suddenly in a young man thirty-three years of age, who was already suffering from syphilis, which had undoubtedly caused degeneration in the coats of the cerebral arteries.

The disordered cerebral manifestations which existed a short time prior to this attack were due to a sudden increased amount of blood being sent to the brain, and this condition of cerebral congestion was still further increased to such a degree, by the constrained position which the patient suddenly assumed while in the act of sharpening a knife upon the floor, that the already diseased vessels, replete with blood, were unable to withstand this increased pressure, and quickly gave way, and an effusion of blood took place at the base of the brain, so as to impair the motor and sensitive tract. The abruptness of the attack and the rapid increase in the paralysis on the left side of the body point very distinctly to cerebral hemorrhage, and these facts are still further strengthened by the development of the premonitory symptoms of disordered cerebral circulation just before the patient was paralyzed, and also the constrained position which the patient was in at the very moment of the attack. It is not very often that we meet with cases of cerebral hemorrhage in persons under forty years of age, as this is the exception rather than the rule; but in some cases where the arteries have become diseased by chronic endoarteritis, or a destruction of the perivascular tissue of the brain has taken place in consequence of organic disease, whereby the support of the

blood-vessels of the brain is weakened, any undue pressure upon these already impaired arterial walls will cause them to rupture and a clot to be effused. A like reasoning undoubtedly applies to this case, for if the man had had a perfectly healthy brain, supplied by vessels in their normal state of integrity, the increased pressure caused by the constrained position would not have caused the rupture to take place. I believe that in all cases of cerebral hemorrhage occurring in patients under forty years of age, an abnormal condition of the brain tissue or of its vessels will be found to exist, either separately or combined. In this case we have a clear syphilitic history whereby we are enabled to discover the predisposing cause of the effusion which existed in this patient's brain; without this element, however, the case would have been considered quite properly one of simple cerebral hemorrhage. Then again it will be observed, that the only sequelæ of this attack were impaired motility and perverted sensibility; all the other phenomena which have been noticed by writers upon syphilis were wanting, if we except the severe nocturnal headache, which persisted until the patient was fully under the influence of the iodide of potassium. The rapid improvement in hearing after this patient commenced to take the iodide of potassium tends to strengthen the facts furnished by the history of the case, that Mr. X. was suffering from syphilis, much more than the gradual and progressive disappearance of the paralysis which would have resulted under like conditions if the case had not been complicated with syphilis. It is a noticeable fact in this connection, that this patient's arm steadily improved and regained its power very much in advance of the leg. In the case of another patient, whose history it is my intention to detail in this paper, the arm began to improve long before any change took place in the condition of the leg, and it has continued so to do until the present time. This man's upper extremity is now quite supple, and he can use it very well for all the ordinary purposes of life, although his leg has not progressed in a corresponding ratio. Trousseau, who has attached much importance to this point, says, in his opinion it prognosticates a fatal termination. Four cases of this kind have fallen under

my observation, in which the arm progressed more favorably than the leg, and three of these patients gave a clear clinical history of syphilis, and all of them are alive to-day and enjoying as good health as the average of mankind.

CASE OF CEREBRAL HEMORRHAGE OF SPECIFIC ORIGIN.

L. C., thirty years of age, was born in Ireland, and is a stone-cutter by occupation. Descended from healthy parents, he has always enjoyed tolerably good health until eight years ago. His mother died at fifty years of age from apoplexy, which involved the left side of her body. His father lived to a ripe old age, and finally died of cancer of the lip. All the remaining members of his family, excepting a brother, who died of hip-joint disease some years ago, are in the enjoyment of good health at the present time. At the age of fifteen he formed the habit of drinking to excess, which he has indulged in freely up to September last, when he was paralyzed. About eight years ago he contracted a hard indurated chancre, which was followed by a syphilitic fever, sore throat, a coppery eruption upon the skin, and alopecia. At a later period he had a gummy tumor upon the head of the tibia, and both his shin-bones became very sensitive to touch. At a still later period the epitrochlear glands became enlarged, and very painful upon pressure, together with the glands in the nape of the neck; and after the lapse of about a year from this period ulcers formed upon the lower and inner side of the tibia of both legs, which remained open for about eighteen months, and were only healed after the patient had been under syphilitic treatment for some time. A year ago last March he had some trouble with his eyes, for which he was treated for some time, and which lasted about three months. Even while in this condition he attended quite regularly to his daily avocations, and, as he expressed himself, "enjoyed tolerably good health." Shortly after the ulcerations on the tibia had healed, which was about the twenty-fifth of last August, he experienced a peculiar cold feeling in the right leg, as though it had been packed in ice. This sensation continued until the first of September last, and during this time he also experienced this same sensation on the left side of his body. For six months prior to his attack he had suffered from severe shooting pains in his head, which at times would be confined to the forehead, then to the top of the head, and again they would be referred to the occiput. These would occur at about five o'clock in the evening, and last until five o'clock in the morning, when they would disappear during the remainder of the day. About three weeks before his attack of paralysis, the severe pain in his head entirely disappeared. The first of September last he left off work, feeling as well as ever, and went home to dinner. While at the table, engaged in eating, he was suddenly seized with vertigo, and fell from his chair, but was immediately caught and car-

ried to his bed. During this attack his consciousness was unimpaired. Upon examination it was found that the whole left side of his body was completely paralyzed, including the face, which was drawn to the right side; the arm, the leg, and the tongue, which deviated towards the affected side. The patient experienced some difficulty in making himself understood; but this was not due either to amnesic or ataxic aphasia, but merely depended upon the fact that his tongue was greatly paralyzed. Gradually improvement took place in the following order: First in the tongue, then in the arm, then followed the face, and lastly the leg, so that in the course of a few weeks he was able to move around by means of a cane, and he had acquired the power of speech to such a degree as to make himself quite intelligible. For some time the improvement which had taken place in this patient slowly progressed in all the parts of the body which were involved, excepting the leg, and this remained in the same condition. During the month of February last he was admitted to the Out-Door Department of the New York State Hospital for Diseases of the Nervous System, where he came under my charge, and at this time his condition was as follows: The patient is unable to close the left eye voluntarily while the right eye remains open, although he can close both eyes simultaneously. He assures me that before this attack took place he could close the left eye with perfect ease, while the right eye remained open; and on applying the faradic current to the orbicularis palpebrarum muscle, on the left side, I found it weakened in its action. The tongue comes out perfectly straight, and he can move it freely in all directions. There is some difficulty in the enunciation of his words, which are uttered more slowly and not as distinctly as formerly. There is paralysis of the left side of the face, which is quite conspicuous when the patient laughs or talks, so as to throw these muscles into action. He also experiences a difficulty in chewing his food upon the left side, on account of the loss of power in the muscles of mastication. The food also catches between the teeth and the cheek, so that when the patient chews upon the left side he is obliged to remove the bolus by means of his fingers. The left arm hangs powerless by his side, and the fingers are contracted and drawn firmly into the palm of the hand. He is unable to raise his arm from his side to any appreciable extent. The left leg is even more paralyzed than the arm, the foot being strongly adducted, the toes dragging with every step, and the patient swinging his leg by means of the muscles of the thigh, so as to make it describe the arc of a circle. On examination by means of the æsthesiometer, the tactile sensibility is found to be slightly diminished in the left arm and leg, while in the face it is perfectly normal. Ophthalmoscopic examination of the eyes reveals an anæmic condition of the choroid, while the vessels of the retina are smaller and straighter than natural, and in the right eye are found the traces of former choroido-retinitis; the heart and lungs are in a perfectly normal condition; the bowels are regular, but the patient experiences

some difficulty in passing his water, on account of the loss of muscular power in the coats of the bladder, so that an appreciable interval of time elapses after the effort before his water commences to flow. Examination of the urine, both microscopically and chemically, exhibits no abnormal ingredients. The intellectual faculties of this patient are as good as they were before the attack, so far as can be judged of a person of so low an order of intelligence. His memory is good, but his emotions are easily excited. The treatment in this case is analogous to that which has already been described heretofore, with the exception that I commenced with twenty grains of the iodide of potassium instead of ten, and rapidly increased this quantity until the patient took fifty-five grains three times a day. I forgot to state in the history of the case, that the right pupil was much dilated, being twice the size of the left, and that the pain in the head, which had disappeared three weeks before the attack, has not returned since the patient came under my observation.

Nearly all writers upon diseases of the nervous system have denied the fact that in cerebral hemorrhage the orbicularis palpebrarum is affected. This and another case which I have carefully studied suffice to convince me that the above-mentioned muscle is, in some rare instances, partially affected, but never to the same degree as in cases of simple facial paralysis. This case differs from the preceding one, inasmuch as the paralysis is more extensive, and involves not only the muscles of the arm and leg, but also the muscles of the face, the orbicularis palpebrarum, which is supplied by fibres from the facial nerve, the genio-hyo-glossus muscle on the left side, and fibres of the third pair of nerves on the right side, which cause dilatation of the corresponding pupil, together with impairment of the fifth pair, which supplies the muscles of mastication. These facts, conjoined with the loss of sensibility on the left side of the body, and the preservation of the intellectual faculties, all tend to show that the site of the clot is at the base of the brain, on the right side. It is hardly necessary to dwell upon the suddenness of the attack, the age of the patient, and the other facts which have already been mentioned in connection with the preceding case, for they are all perfectly applicable here. There can be no doubt but that this attack was the result of syphilitic infection, which was also still further hastened by the very intemperate habits of the patient. At the present time the paralysis of the

face remains, only it is less marked than formerly. The food still catches between the cheek and the teeth, and the patient even now experiences some difficulty in chewing his food upon the affected side. The right pupil remains dilated, and the left orbicularis muscle does not contract as readily as the right. The arm has quite markedly improved and the patient is able to use it for the common purposes of life very well. The fingers are supple, and do not tend to press forwards into the palm of the hand. There is less trouble in flexing the forearm on the arm and moving the fingers than in raising the arm itself, as the muscles of the shoulder have not regained their contractility in the same proportion as the muscles of the forearm. Nevertheless the patient can raise the arm to the level of his shoulder, and can move the forearm and hand with great facility, but he cannot button his shirt-collar, although he can button his coat. His leg is very much adducted, and the muscular contractility of the extensors and peronei muscles is very much impaired; he also is unable to extend the leg upon the thigh with any ease, owing to the weakened condition of the quadriceps femoris. Notwithstanding this, the muscles of the leg and thigh have gained much power since he first came under treatment. The sensibility of the left side is normal; the bladder, however, has not recovered its tone. His speech is still affected, and his emotions are of a depressing character. His legs show the cicatrices of the ulcers which are now healed, and their appearance is such as to reveal their nature. The treatment has been continued in this case up to this time, but owing to want of proper food and care, which this patient has been unable to obtain, the result has not been as satisfactory as it otherwise would have been under better hygienic conditions.

Reviews.

ON THE SO-CALLED SYPHILITIC BLOOD-CORPUSCLES OF LOSTORFER.

In the last issue of this Journal an account appeared of the recent discovery of a so-called peculiar corpuscle in syphilitic blood, claimed to have been discovered by Dr. Lostorfer, and by him brought to the attention of the Vienna Medical Society. The position occupied by Dr. Lostorfer, and the credence given to his statements by many of the most learned in Vienna, served at the time as a sort of guaranty to the genuineness of his claims; and for a very brief period the author enjoyed the enviable reputation of a great discoverer in science. At the meetings of the Vienna Medical Society, at and subsequent to the announcement of the so-called discovery, the discussion was, according to all accounts, not merely interesting but exciting. The feeling displayed by those who took an active part in these proceedings served as a stimulus to further investigations—which eventually burst the bubble. To us, especially interested in venereal pathology, the subject is an exceedingly interesting one; and we have gone over the various statements with some care, as a matter not only of personal satisfaction, but as a duty to our readers. The only real features of scientific interest that have been evolved, as the result of the claims of Dr. Lostorfer, relate to certain conditions of the blood taken from persons suffering from different diseases, examined under extraordinary conditions, and with extraordinary care. As a matter of interest, to this extent, we insert a full account of the method of examination pursued by Dr. Lostorfer, followed by succinct accounts of the investigations of Profs. Stricker and Köbner. At the time the subject was first ventilated, Drs. Wedl, Neumann, Gruber, and others denied the existence and validity of the claims of Dr. Lostorfer; and the laudatory remarks made on that occasion by Profs. Stricker, Hebra, and others, were based on a fair assumption that so able a microscopist as Dr. Lostorfer could not be astray in his deductions, after so many careful experiments and tests.

In the economy of scientific medicine in this country, where it must be conceded by all competent observers that we are mainly receivers—not yet producers to any great extent—the

subject at once attracted attention; but no investigations have been made, so far as we have been able to learn, that throw any special light on the subject. The committee appointed by the Boston Society for Medical Observation, to investigate the subject, reported, as the unanimous result of their researches, "that their conclusions are negative; that the bodies described by Lostorfer as peculiar to syphilitic blood were found in the blood of syphilitic patients and of healthy persons as well; and that the so-called corpuscles appear to have their origin in certain physical or chemical changes to which the blood globules are subjected in the course of prolonged microscopic examination."

Dr. Lostorfer's views and methods of investigation have been clearly stated by Dr. Bronson,* who is pursuing his studies in Vienna, and whose account we transfer to our pages. The published letters of Dr. Bumstead,† containing the results of his interviews with Prof. Stricker, throw no light on the subject worthy attention. In assuming the rôle of the modern American interviewer, Dr. Bumstead has, we regret to see, fallen thoroughly into the faulty and sensational style of our local news-collectors.

LOSTORFER'S METHOD OF INVESTIGATION.‡

"The method of examining the blood for the syphilis-corpuscles is simple enough, but the observance of certain particulars is peculiarly essential. Often a preparation excellent for purposes of ordinary examination will be found quite unfavorable to the observation of Lostorfer's corpuscles. Where, for instance, the blood-globules lie flat, dispersed singly, but in near proximity over the whole field, search for the syphilis-corpuscles will be at least attended with much difficulty, and usually fruitless. In a good preparation the *amount* of blood will be *small*, not occupying more than half the area of the glass-cover, and bounded by a narrow border of dried blood. To this end the amount of blood pressed from the slight puncture should be minute, to which the cover is then lightly touched and dropped upon the glass slide. The disposal of the blood-globules most favorable to the appearance of the corpuscles of Lostorfer is where the former have run together so as to form a sort of network containing clear interspaces. These will be found usually towards the edges of the preparation. It is in these clear interspaces that the appearance of the syphilis-corpuscles is most

* *Medical Record*, May 1, 1872.
† *Idem*, May 1 and 15, 1872.
‡ *Idem*, May 1, 1872.

constantly remarked, as well as here most favorably studied and acted upon by reagents. The specimens, as soon as prepared, are brought into a moist chamber. The apparatus here used is a cylindrical glass jar, the cover fitting with ground-glass edges, containing a little rack for supporting the slides and a few drops of water at the bottom. In the microscopic examination the objective used is the No. 10 immersion of Hartnack, or one of corresponding magnifying power. The corpuscles can usually be readily seen with Hartnack's No. 8, but appear too small for purposes of study.

"At the expiration of from 14 to 24 hours little granules will appear in the above-mentioned interspaces, rapidly in motion. Later, in the same situations larger granules will be observed, and so they gradually increase with a positive appearance of development, till from minute indefinitely shaped granules, little bodies with distinct circular outlines appear, with bright reflection of the light at a higher adjustment, and dark as the lens is depressed, till at length, usually at the expiration of about 48 hours, corpuscles have developed which can with certainty be recognized as the corpuscles of Lostorfer. It is to be regretted that at present a description of these latter must be limited almost exclusively to their optical peculiarities. Chemical reagents have yet afforded but trivial assistance. In size the corpuscles vary very considerably. At the end of the second day they have usually an average diameter of from 0.002 mm. to 0.005 mm., and from this time forward their increase is proportionally much slower. When kept for a week or so they often attain the size of the red blood-corpuscles, while their ordinary size is but from one-twelfth to one-sixth of that. Finally, they seem to undergo a commencing degeneration, and their brilliancy fades. They remain usually, however, distinct, till lost by the drying-up of the specimen. By good light the appearance of the corpuscle is that of a delicate little sphere. By higher adjustment of the lens its reflection of light is stronger than that of the red blood-corpuscles. Besides its intensity, the diffusion of the brilliancy uniformly over its whole area distinguishes it markedly from detached bits of red corpuscles, oil globules, etc. The outline by this adjustment of the lens is undefined, nor is it by the deeper adjustment so sharply defined as that of the red blood-corpuscles. The difference is well marked, and an important point of distinction from numerous bodies liable to be confounded with the corpuscles of Lostorfer. On depressing the lens the corpuscle appears of a uniform light gray, without variation in depth of shading from centre towards the periphery. On depressing the lens still more the body dis-

appears from view, without becoming darker in hue. Another peculiarity of these corpuscles, not usually shared by others resembling them, is the frequent occurrence of little processes jutting out from their surface. As observed by the writer, these have never amounted to more than a greater or less irregularity of the contour at some point. Dr. Lostorfer, however, asserts that he has seen them sometimes go on to the development of a little chain, like a micelium. He also describes the formation of vacuoles within the corpuscle, which gradually increase till they come to occupy the entire body's space. It was from these appearances that Lostorfer formed the opinion that the corpuscles were spores.

"The peculiar characteristics, then, in the appearance of the syphilis-corpuscle are: (1) its apparent delicacy of structure; (2) the moderate definition of its contour; (3) its uniform grayish shade; (4) its reflection of light stronger than that of the blood-globules; and (5) finally, the formation of little sprouting projections (Sprossen-Bildung) upon its surface. Of course in absence of a good light these appearances will be modified; the brightness less intense, and instead of the light-grayish there will be a darker shade.

"As to chemical reagents, but one has yet been found of much service as a test. Dr. Lostorfer states, that on the addition of acetic acid to the blood his corpuscles shrink, and finally become indistinguishable, while bits of detached protoplasm swell and are dissolved under its action. Several other bodies, resembling in point of size, shape, etc., the syphilis-corpuscles, resist much longer the action of the acid, or remain unchanged. The test is attended with some difficulty, owing to the liability of the corpuscle under observation being swept away by the sudden current. The choice of corpuscles for experiments which lie in the above-described open interspaces, and thus, to some extent, protected from the influence of the current, as well as the very gradual addition of the diluted acid, will to some extent obviate this danger. The corpuscles of Lostorfer will be seen, directly the acid reaches them, to change their form to a more contracted one; assuming often, as the acid continues to operate, a stellated form, their brilliancy fades, and they become more and more indistinguishable, till in the accumulating débris they are finally lost from view.

"Bodies met with in blood which can be mistaken for the corpuscles of Lostorfer arise certainly in large part from the disintegration of the blood-corpuscles. The red globules often detach little corpuscles that assume about the size and shape of the syphilis-corpuscles, and have a tolerably strong reflection of

light. These corpuscles, however, usually retain the greenish or reddish color of the parent globule, and, what is more marked, their outline is *always sharply defined*, and their reflection of light less uniform and less intense than that of the syphilis-corpuscles. Their appearance is readily learned by simply warming a specimen of blood over a flame, when these little bodies will be detached in large numbers. Of more importance are the bodies that result from the disintegration of the white corpuscles. A not uncommon opinion of the origin of the corpuscles of Lostorfer amongst those who have investigated the subject refers it here to this disintegration. The white corpuscles commence early to disintegrate. First the nuclei and granules become distinctly defined, then the contour of the corpuscles appears at some point ruptured, and numerous bodies will be found issuing from it or lying in its immediate vicinity, which in size, shape, and perhaps some other respects resemble the syphilis-corpuscles. They consist for the most part of nuclei, spheres of protoplasm, and vacuoles, probably containing gas. They are mostly easily distinguished from Lostorfer's corpuscles. They are often of a reddish tinge; are pale bodies, wanting the brilliancy of the syphilis-corpuscles, or have sharply defined contours. Finally, in acetic acid is their reaction, at least generally, not like that of the corpuscles of L., viz.: they do not shrink up under its action. There will also be frequently found in blood little bodies possessing the optical properties of oil-globules. Prof. Wedl, in his report on the corpuscles of Lostorfer, before the Gesellschaft der Aerzte, pronounced these corpuscles as identical with fat-globules, or possibly also bits of protoplasm. But the circumstance that corpuscles having all the appearances of fat-globules do often occur in the blood, and that their dissimilarity to Lostorfer's corpuscles is strikingly marked, renders it at least doubtful if it were the corpuscles of Lostorfer which Prof. Wedl had observed. Amongst the numerous critics who have subsequently expressed opinions on the nature of these corpuscles, I think no one has supported the opinion of Wedl. Prof. Stricker has declared his total inability to form an opinion of the value of the corpuscles of Lostorfer, and were they fat-globules one would suppose he must have discovered it. Moreover, fat-globules would be found in the fresh blood, whereas the syphilis-corpuscles are scarcely recognizable before the second day, and usually not before the expiration of 48 hours. As to constancy of appearance of these corpuscles in syphilitic blood, Dr. Lostorfer asserts that he has found them in the blood of every syphilitic patient which he has examined, not, however,

in every specimen. He has, indeed, sometimes been obliged to take blood for the third time from the individual before his search was rewarded. Certainly the *frequency* with which these corpuscles occur in syphilitic blood can scarcely but be remarked by any one who will take the trouble to examine the blood with care, in the manner here described; and it may be also ventured to assert that the more familiar the distinguishing characters of these corpuscles become, the less frequently will corpuscles resembling them in non-syphilitic blood be regarded as identical." *

STRICKER'S VIEWS AND INVESTIGATIONS. †

"The experiments were commenced with the blood of three syphilitic male patients, in all of whom the corpuscles became visible in great quantities after some days' germination. Thus material was sufficiently furnished for the solution of the first question. But there was a preliminary question to be solved first—namely, whether or not the corpuscles of Lostorfer may not be found in fresh blood. Before entering into that question, the lecturer considered it necessary to describe his method of preparing and preserving his objects.

"If objects are prepared for the mere purpose of being examined fresh, and with high magnifying powers, they ought to form as thin a stratum as possible. This is best obtained by well cleansing and drying both the object-glass and covering-glass, and by bringing the latter into contact with the blood of a small wound in such a manner as to leave on the glass only a very small drop. By putting now the covering-glass quickly on the object-glass, the small drop turns into a stratum sufficiently thin for examination; if not, a slight pressure on it suffices to produce the desired effect. As the examination is always effected by means of immersing lenses; as it is, further, important to observe the edges of the covering-glass as far as possible —overflowing of the water necessary for immersion rendering the object useless—it may not be amiss to mention that only a very small drop of water is put on the covering-glass by means of a pipette, both ends of which are drawn out into capillary tubes.

"The appearance of fresh blood is various. In some persons the blood shows nothing but normal elements—namely, red

* Dr. Bronson should have confined his report to a simple statement of Lostorfer's views. But a short time was needed, to show that what he "ventured to assert" has been refuted.

† *Medical Times and Gazette*, May 11th and 18th, 1872.

blood-corpuscles, white corpuscles, and minute granules devoid of any color. Very often, however, small colorless lumps may be seen, of the size from a nucleolus to the average magnitude of a nucleus of a white blood-corpuscle. To these granules our attention is particularly drawn if we work with very high powers.

"It is not necessary to enter into a description of these bodies. Suffice it to make the general remark, that many of them have the appearance of pieces of young cells, whilst others make the impression of crossing-points produced by coagulation. Such points are particularly produced where the blood stratum is somewhat thicker, and on spots containing no blood-corpuscles, but being traversed by fine filaments. It may be supposed that the filaments, as well as the crossings or ramifications, consist of fibrine. The lumps having the shape of pieces of white blood-corpuscles are, like the latter, polymorphous, and only rarely spherical. Besides the elements just described, fresh blood of some persons contains other very minute granules in active undulation. They can be defined by Hartnack's No. 10 à immersion, and it is not to be decided whether the undulation is that of Brown, or whether we have some organisms before us. The fact is, however, worth while mentioning, in order to draw attention to the question of the possibility of the existence of very minute lower organisms in the circulating blood of healthy persons. Fresh blood, however, contains also, though rarely, bodies of which it is very difficult to say whether they are accidental admixtures or whether they have already been in circulation. They are generally of spheroid shape, have dark contours, and are characterized by their being of a very dark hue when accurately focussed with very high powers (Hartnack No. 15).

"The aim of germination for the lecturer's purpose consists in preserving good objects, accessible to air, as long as possible. This end is arrived at by the objects being put into some space where, on the one hand, they are prevented from exsiccation, and, on the other, protected from the accession of evaporated water. For this purpose they are placed in a camera exhibiting a comparatively small surface of water in respect to the cubic space of the camera. This exsiccation-glass affords room for a small stand to contain about a dozen objects, which if provided with tickets, permit the placing of preparations of different individuals into the same glass and on the same stand. For the purpose of germination the preparations are not made so thin as described above. Before the object is prepared, Professor Stricker forms on the object-glass two small ridges of wax, so as to support the covering-glass. After the preparation has been

made, he presses the covering-glass on these ridges until the rouleaux assume a reticulated arrangement. The meshes of that net, filled with plasma (plasma-islets), contain germinating spaces exceedingly suitable for our purpose.

"Having given still more detailed advice on, and explanation of, the method of investigation, Professor Stricker shows that under such circumstances it can easily be understood how it was possible for him to continually observe many preparations during several days. Standing on such ground, he is able to declare that the corpuscles which he looked upon as products of coagulation or as pieces of protoplasm disappear, as a rule, after twenty-four hours' germination. For the present purpose it is of no consequence whether or not the explanation of these bodies be right or wrong. The importance rests in their identity with the corpuscles of Lostorfer, and in the question whether the latter are products of the former. In both instances they would evidence that Lostorfer's bodies may be found in fresh blood of healthy as well as of diseased individuals. This, however, is not the case. Professor Stricker has registered all alterations occurring in plasma-islets of recent preparations, and has been convinced that new granules, which had not been seen in the field before, sprang up immediately around the bodies of fresh blood, although the contours of the latter had already been indistinct and paled away, and that these new granules, under continual observation, were seen to become larger and larger, until they had assumed the shape of Lostorfer's corpuscles. In what manner the bodies of fresh blood perish cannot be said, nor does the phenomenon touch the question under consideration.

"The preliminary question—viz., whether or not Lostorfer's corpuscles may be found in fresh blood—has now partly been answered; but the following observation replies to it in a still more positive manner:—There was in the month of March, in Professor Zeissl's wards, a syphilitic patient whose blood was particularly suitable for Professor Stricker's experiments. He was about 22 years of age, ill-nourished, and had acquired syphilis four months before, consisting originally of a chancre, which was, however, followed by an exanthem and by iritis. From the hands of this patient a few drops of blood were taken, and objects prepared from them, when it was found after twenty-four hours, that the edges of the covering-glass were literally covered with the corpuscles in question. A second series of objects exhibited the same appearance. In a third series, however, the same result was not obtained after thirty-six hours, the corpuscles becoming visible only after forty-eight hours.

"At about the time of examination of the last series, fires had been discontinued in the laboratory, notwithstanding the still low temperature of the atmosphere. On consideration of the circumstances which might have been productive of the ill-success just mentioned, Professor Stricker's attention was drawn to the difference of temperature, and on the next day the laboratory was heated again to 22° Centigrade. About three hours afterwards the corpuscles made again their appearance in large numbers. Some of them were of such a large size as imperatively to produce the suspicion in the observer's mind either of their having already existed in the fresh blood and escaped observation, or of their having had a rapid growth in this instance —a growth which must be capable of direct observation. On the next day, therefore, a new object was taken, the laboratory heated as the day before, and a certain point of the object's edges put under No. 10 of Hartnack's immersion-lenses and observed. About thirteen minutes had elapsed since the blood had been taken from the patient, when Stricker thought he perceived some granules within the plasma-islet which hitherto had been perfectly transparent. Ten minutes later the granules had attained such a definite character as to permit the observer to distinctly notice their position, while at the same time numerous new granules seemed to spring into existence in the same islet. After the lapse of half an hour the first observed granules were of such a size as to be decidedly recognized as those looked for, and after about one hour and a half they were as large as a small pus-corpuscle, whilst the whole plasma-islet was swarming with similar but smaller bodies. Stricker had now no doubt whatever of having Lostorfer's corpuscles before him, which he had seen growing within a plasma-islet under his very eyes. On the following day the experiment was repeated in the same manner, with the exception that, instead of heating the room, the object-bearer of the microscope was heated to 25° Centigrade. The result was exactly the same.

"Having thus obtained a positive reply to the preliminary question, Professor Stricker now proceeded to answer the principal question—namely, What is the nature of the corpuscles; are they organic or inorganic? The facts hitherto arrived at do not warrant a reply to either of the two possibilities. It is true we have seen the bodies growing, but mere growth is not sufficiently characteristic to give a decision. Lostorfer announced that the corpuscles produced projections. This is true, but Stricker has positively observed some of these buds not to be the result of growth but of opposition. In their quite recent state most of the corpuscles are spheroid, appearing homogeneous if viewed

by No. 10, or even by No. 15 of Hartnack's immersion-lenses. Stricker now succeeded in directly observing a small corpuscle, lying sometimes near a bigger one, approaching to the latter, ultimately adhering to it, giving the impression of a small head with a mark of strangulation between it and the bigger body. After some time this line became altered in shape, the bodies assuming the appearance of clubs, and lastly of globes. Stricker, of course, could not say whether all budded corpuscles originated in the same manner; but the observation was sufficient to enable him to pronounce that such buds are of no significance whatever as to the life of these formations. Thus, from the fact of their growing we can form no conclusion as to the nature of the corpuscles. The only conclusion warranted is their being formations hitherto unknown in blood.

"In the mean time another experiment was made, which led nearer towards the explanation of the nature of the corpuscles. Professor Stricker noticed that the bodies are differently acted upon by chemicals immediately after having grown on the heated object-bearer, and differently when preserved several days as granules in the germinating apparatus. In the last instance they resist strongly the influence of acids as well as of alkalines, shrivelling a little, but not being destroyed. But, having been developed, they are destroyed by the chemicals mentioned, and even by water. For this reason it is important that no water should be admixed with the object at the commencement of germination."

KÖBNER'S RESEARCHES.*

The following is a clear and distinct statement of the results of his investigations:

"Having drawn specimens of blood from syphilitic patients, and protected them from air by receiving them into freshly blown glass bulbs with sealed capillary ends, Dr. Köbner found that, after two or three days in a temperature of 52 to 68 deg. Fahr., a few of the red corpuscles presented an indented outline; and in the interspaces between the red corpuscles there were colorless homogeneous vesicles, refracting light only a little more than serum, and having an indistinct contour. They differed remarkably in figure, size, and arrangement in different parts of the same preparation; some were round, others oval, others pear-shaped; some were attached to the red corpuscles, others to the white, and others lay free in the plasma. Some of

* *British Medical Journal*, May 11, 1872.

the vesicles had a minute gray mass attached; others, one or two vesicles similar in character, but nearly always smaller, producing the appearance described by Lostorfer as gemmation. In some parts the vesicles were collected in chains of from three to six, or in masses of as many as fifteen. The diameter of the vesicles varied from .0032 to .0015 *millimètre* (about 1-7812th to 1-16660th of an inch); a few only were nearly as large as the red corpuscles. Some of these larger vesicles had a small space in the interior. Similar vesicles were also observed in the interior of the white corpuscles. On the fourth, fifth, and sixth days the vesicles had increased in number, and some of them had become aggregated into masses. In these masses the vesicles were nearly of the same size—about half as large as a red corpuscle; elsewhere, they varied as before in size and form. Here and there small vesicles were observed within or at the edge of masses of detritus. From observations extending over three weeks, Dr. Köbner became convinced that these vesicles were neither oil-globules nor cryptogamic spores. This was shown not only by their general characters and their reaction to various chemical agents, but also by the fact that they decreased and at last disappeared, while the *bacteria* and *mycelia* increased. Although, then, these vesicles were of no pathogenetic importance, still their exclusive occurrence (as asserted by Lostorfer) in syphilitic blood might have a diagnostic value. But, on examination, Dr. Köbner found similar appearances in the blood of patients suffering from small-pox, eczema, lupus, and acne, as well as in the blood of syphilitic patients who had been treated with mercury and iodine, and in healthy blood. The number of vesicles observed in specimens of blood from the same patient was much modified by certain accidental circumstances, especially by the rapidity with which the blood was covered in. The corpuscles were fewest, or even none, in blood which was not covered in for several minutes. Dr. Köbner then varied the method of observation in several ways. When the specimen was immediately covered in with varnish, and placed in a water-bath of 25–36 Cent. (77–97 Fahr.), a number of the vesicles appeared in the course of an hour; while in similarly prepared specimens from the same subject, lying in the same room, at a temperature of 50–63 Fahr., scarcely one could be found. On examining the specimens from one quarter of an hour to another, he was able to see, at the end of two hours, that a number of new vesicles had been formed in the islets of protoplasm; and that in some instances two became joined in a round, cylindrical, or oval body. Being at first inclined

to suppose that these appearances might be due to the living plasma, and bearing in mind the experiments of Binz on the action of quinine on the amœboid colorless corpuscles, Dr. Köbner compared the blood taken from the puncture made in injecting a quinine solution in a case of neuralgia with some blood taken from a finger of the same patient, and on the next day found that the latter contained numerous vesicles, and the former none. Another similar observation, however, showed that the difference depended on some accidental circumstance; for both specimens contained the vesicles. Various observations with specimens prepared in the moist chamber, and by cementing, with or without the application of warmth, showed similar differences in the blood of healthy persons and those suffering from small-pox and other diseases. For instance, in specimens of healthy blood cemented in immediately after being drawn, vesicles were met with in an hour, and were greatly increased in quantity when warmth was applied; while in other specimens, placed at the same time in the moist chamber, the vesicles did not appear till two, four, or five days. Dr. Köbner observed the development of the vesicles in the plasma of the blood by using a fenestrated heated chamber, such as has been devised by Professor Cohn for observing the movements in vegetable protoplasm. As the temperature was raised, their number was perceptibly increased; and they gradually ran together here and there, until at a heat of 102° Fahr. they diminished, and at 115° Fahr. shrank up. As to their nature, he believes them to be vacuoles, such as were first described by Dujardin in the sarcode of infusoria, and lately studied by Cohn and Braun in the cells of plants."

With the full statements we have given of the claims and views of Dr. Lostorfer regarding the so-called syphilitic blood-corpuscles, as well as the accounts of the admirably conducted investigations of Profs. Stricker and Köbner, we end all that we have to say on this subject. It explodes completely the *crypta syphilitica* theory of Dr. Salisbury. It destroys all prospects of accounting for syphilitic infection through the germ theory of Dr. Lionel Beale, and, we trust, will spare us for some time to come from the necessity of reading any more lengthy communications of any theories unless supported by reliable investigations, or, at least, clinical observations from persons familiar enough with the subject to make their judgment and experience of some value to the profession.

M. H. Henry, M.D.

REVIEW OF A CASE IN WHICH SYPHILIS IS SAID TO HAVE BEEN TRANSMITTED BY THE MILK AND SALIVA.

This case,* reported by Dr. William Wilson, is interesting in showing upon what insufficient grounds cases of so-called transmission of syphilis by the milk, saliva, &c., are so often based. I have given the case in full, in justice to Dr. Wilson, and that it may be clearly seen for what reasons I object to his conclusions.

"I have to submit to the profession the following notes of an extremely interesting case of acquired syphilis which came under my notice while acting as 'locum tenens' for the Assistant Surgeon in the County Down Infirmary.

"It will be seen from the notes of the case that it favors the view which Ricord entertained—viz., that a wet-nurse may contaminate the infant to which she gives suck through the medium of her milk. Acton denies the possibility of this; but the following case is strongly in favor of Ricord's views. Another vexed question is resuscitated in this case—*i. e.*, whether or no a syphilitic child can infect a healthy nurse. Both Ricord and Acton deny the possibility of this; whereas Hunter and Lawrence cite cases in which it has occurred. Rollet, in his report, 'Recherches Cliniq. et Expériment. sur la Syphilis,' as quoted by Lancereaux in his 'Treatise on Syphilis' (vol. 11, p. 246 et seq.), maintains the view of saliva acting as an infecting medium. The case related by Rollet is so interesting that I am sure I will be excused for quoting it here. 'A young woman of irreproachable morals contracted syphilis, the first manifestation of which was a chancre on the lips. After questioning the patient in the presence of her mother and husband, Rollet came to the conclusion that the disease had been communicated by the cook. The latter, who had been ill for eight or ten months, had the isthmus of the throat occupied by confluent mucous patches, and the young lady was in the habit of tasting all dishes prepared by her servant with the same spoon, and immediately after her.'"

In the case which I am about to quote there is the most striking similarity in the means whereby the syphilis was transmitted to the above case of Rollet's.

CASE.—Biddy McVeigh, æt. 33, married, by occupation housewife, living at Kilkeel, was admitted into Downpatrick

* On acquired Syphilis. *Journal of Cutaneous Medicine*, No. 16, vol. 4.

Infirmary on December 8, 1870, and was placed under the care of Dr. Maconchy for secondary syphilis. Also, at the same time, her four children—viz., Mary Anne, æt. 11; Eliza, æt. 7; William, æt. 4; Biddy, æt. 1, were admitted for the same affection.

The mother stated, on admission, that she had been laboring for some time under sore throat, but that she had been taking medicine for it, and that now her throat was almost quite well, and that she only wished admission to look after her children. On examination, the tonsils of the mother were found to bear the marks of superficial ulceration, but there were no signs of inflammation, and she did not complain of any pain. The children were all found to be laboring under ulcerated sore throat, the tonsillitic ulcers having the bi-symmetrical character and gouged out appearance peculiar to specific sores. In addition, all the children had those serpiginous patches round the margin of the anus which are known as condylomata. None of the family had any other affection, with the exception of the youngest child,—Biddy, æt. 1,—who had small superficial ulcers about the angles of the mouth, roseola over the lower two-thirds of the nose, and laryngitic symptoms; also, aphthous-looking spots on the tongue. The mother complained of nothing, nor did she present any symptoms of the disease except the condition of the throat before referred to. The eldest child, Mary Anne, had ulcerated sore throat of a more virulent character, and condylomata larger and more irritable than the rest of the family. With these exceptions, there was no difference of any moment in the symptoms between the rest of the members of the family. The youngest child, in consequence of its present constitutional disorder, looked very debilitated; the others were strong, tolerably healthy-looking children, full of animal spirits.

On inquiry, the mother stated that the youngest child was the first to be affected. That it was, on the day of its birth, a fine healthy child; and that on that day her sister-in-law—a married woman—gave the child *the breast* on two separate occasions. She (the mother) being told by a neighbor that her sister-in-law was laboring under the "*bad disorder*"—having been smitten by her husband—took the child from the sister-in-law, and never again allowed her to suckle the child on any other occasion. From that time her child remained quite healthy and suckled well for nearly a month; but when the child was close upon being four weeks old, she observed it becoming very cross and irritable, and she began to find great difficulty in inducing it to take the breast. About this time also—four weeks after birth—she observed spots coming out over the child's body of a

dark-red color, and about the size of a pea, which "*never came to a head*,"—*i. e.*, never became purulent or serous. On seeing the eruption she got alarmed, and consulted a medical man, who gave her a *salve* and medicine; persevered in the use of the salve and medicine, and the spots disappeared in three months. About two months after she first saw the eruption, she observed the sores about the child's anus. Her medical man, being consulted about these sores, pronounced them syphilitic, and ordered her to apply the "black wash" to keep the parts clean, and to give the child spoon diet, as the amount of nourishment it—of itself—was able to derive from the breast was inadequate for its sustenance. When the infant was two months old, she (the mother) observed two large flat-looking dark-red spots on her breast—one on each side of the nipple of the breast she was accustomed to apply the child to—and shortly after she took a very bad sore throat, and used to spit out "*matter*" from it which had a bad taste and smell. It was nearly nine months before her throat was well, although during the whole of that time she had been under medical treatment. She states that she did not suffer from anything except the sore throat and the two spots on the breast.

The eldest daughter was accustomed to spoon-feed the youngest child, putting the spoonful of pap through her own mouth, in order to test whether or not it was too hot, etc., etc., before introducing it into the mouth of the child. When the whole spoonful was not swallowed by the child, she ate herself what it had left, before replenishing the spoon. Eliza and William, the other two children, were accustomed to receive spoonfuls of pap while the infant was being fed; and they came in generally for what was left on the spoon, after being passed through the child's mouth.

About five months after she first commenced to feed the child, as nearly as the mother can remember, Mary Anne, the eldest daughter, complained of sore throat, and shortly afterwards showed her mother the condylomata round the margin of the anus. About three months after the eldest first complained, the other two children, Eliza and William, also became affected with sore throat and condylomata. None of the children, with the exception of the youngest, who had roseola of the nose and small, flat reddish "spots" over the body, had had any skin affection whatever; nor did the three eldest complain of anything except the throat affection and the condylomata.

Biddy McVeigh (the mother), on being interrogated, stated that she had two children living at home with their father, one boy nine years old, and the other a girl æt. five. Neither of

these children have, up to the present time, shown any symptoms of the disease. The mother states that the boy, who was very "*old-fashioned*," always refused to partake of the pap with which the infant was fed; he considered himself quite a man, as he was accustomed to work in the fields with his father. She does not know how the other child escaped the infection. She thinks that the latter did not get any of the infant's food, but is not altogether clear on this latter point. At the time the sister-in-law gave suck to the child, the mother saw her breast, and there were, in her opinion, neither "sores," "spots," nor anything else the matter with it; it was, in short, in her opinion, a healthy enough looking breast. She never heard from any one that there was anything wrong with her sister-in-law's breast. On being questioned, Biddy McVeigh asserted, in the most positive manner, that her husband never had venereal disease; that he was, in fact, a "*very good living man.*" The husband also supported, with the most solemn asseverations, the wife's statement as to his never having had venereal disease.

Biddy McVeigh is a short, muscular, slightly swarthy woman, and pretty healthy looking. She is intelligent, and her statements bear the impress of truth. At present she has been three months pregnant.

The whole family improved steadily under Dr. Maconchy's mercurial treatment, and at the present time (Jan. 5, 1871) they are so far recovered as to be almost in a condition to leave the infirmary.

On perusal of the above case it will be noted that the youngest child became contaminated by a person who, as far as we can learn, had no cracks about the nipple, or excoriations of any other part of her breast, although laboring under constitutional syphilis at the time she gave suck to the child; and (2) that the child communicated syphilis to the mother through the medium of the milk, and the child infected the mother through the medium of the saliva. It will also be noted that the eldest daughter—who had her mouth more constantly in contact with the spoon by which the child was fed—had more severe symptoms, and an earlier manifestation of the action of the syphilitic virus than any of the other children; and, lastly, it will be noted that the virus manifested its presence in all the members of the family, not by a primary sore, but by secondary symptoms.

In this summary the following points at once occur for examination: Upon what grounds Dr. Wilson asserts the sister-in-law's nipple and breast were healthy; if there were no other means by which the nursling could have infected the mother

and other children than by the saliva; and his reasons for saying that "the virus manifested its presence in all the members of the family, not by a primary sore, but by secondary symptoms."

For the first of his assertions he depends entirely upon the mother's word, who declared "that there were, in her opinion, neither sores, spots, nor anything else the matter with it" (the breast).

What trust can be placed upon her opinion; how competent is she to judge whether the breasts were sound? It is very well to say that she could surely tell if there were an ulcer on the breast, but some chancres so much resemble mere abrasions as to render the differential diagnosis difficult, even to a practised eye. (Consult Bumstead on Venereal, 3d Ed., pp. 418, 430.)

Granting there may have been no chancre on the breast or nipple, what reason to disbelieve the presence of mucous patches on the nipple? They certainly are not so extremely uncommon in that region, and are as capable of conveying the disease as is a chancre.

As to Ricord's opinion of the possibility of transmitting syphilis by the mother's milk, it is, I confess, something entirely new to me, and it is to be regretted that Dr. Wilson did not give his references for the statement. I have looked for it, but cannot find anything which would authorize the statement; and the following, which I copy from Diday's work on Infantile Syphilis (Syd. Soc. Public., 1859, p. 47), would seem to directly contradict it. It is in the chapter where contagion by the milk is discussed, and is as follows:—"Nurses who presented well-marked secondary symptoms have been able to suckle children sent to me as affected with syphilis, but who have nothing more than simple eruption of ozæna, impetigo, or the various forms of porrigo; and never, under my observation, have these children been infected." One more point: Mucous patches are common in the mouth, throat, and on the tongue of those suffering with syphilis. Their secretion is inoculable; perhaps the child was diseased in that way. This brings us to a consideration of the second point, as to whether the nursling could have infected the mother and the other children in any other manner than by the saliva.

In the beginning of the article he quotes Rollet (Recherches Cliniques et Expérimentales sur la Syphilis) on the authority of Lancereaux as advocating the possibility of infection by the saliva. In turning to Rollet's work, the case quoted (p. 281) occurs under the head of "The chancre of the mouth produced

by contagion from *secondary syphilis*" (p. 272), not from the *saliva*, and on reading his comments of the case, he evidently considers the lady's disease sprang from the secretion of the mucous patches in the servant's mouth. Very probably the saliva was the vehicle in which the poison was conveyed from one to the other, but had there been no mucous patches, and no secretion from them, no contagion would have resulted.

In further support of this argument Lancereaux (Traité, &c., de la Syphilis, 1866, p. 628), in discussing contagion by the saliva, writes: "It is clear enough that saliva coming from a mouth filled with mucous patches ought to be infectious; but apart from that condition, is syphilis transmitted by the saliva? There is no reason to believe that it is, after the report made by Diday to the congress at Lyon. He was enabled to inoculate, without result, upon sound subjects, saliva obtained from syphilitic persons." Let us turn to the case before us. The child was evidently infected the day of its birth; what was the result of this infection? Probably what it always is,—a chancre; although Dr. Wilson would have us believe, if I understand him rightly, that the disease began with secondary symptoms. (In this connection, consult *Bumstead*, op. cit., p. 472. *Rollet*, op. cit., p. 248 et seq. Lancereaux, op. cit., p. 64 et alii.) Subsequently, when the general symptoms made their appearance, *i. e.*, the eruptious, mucous patches probably occurred in the mouth as well. The three eldest children were in the same relation to the baby that the lady was to the servant in Rollet's case which Dr. Wilson quotes. The true cause of contagion was the child's chancre, not the saliva. The mother's disease was contracted from the child's initial lesion, for I have no doubt of its existence, although it escaped Dr. Wilson's notice, as there is every reason for its doing, for the baby did not come under inspection until a year after contagion.

I think it quite likely that Dr. Wilson is mistaken in assigning the appearance of the eruption at four weeks after birth, as secondary symptoms do not appear until from eight to ten weeks after the date of contagion. This rule is as true of children as of adults.

What lesions appeared upon the mother? Dr. Wilson says secondary symptoms. What, pray, were the "two large flat-looking dark-red spots on the breast?" Were they not chancres, and if not, what? As regards the children, Dr. Wilson did not see them until from five to eight months after secondary symptoms had declared themselves in them; time enough for the initial lesion to have disappeared. But though he was unable to verify its presence in them, how can its existence be doubted

when it is an axiom in syphilography that syphilis always begins with a chancre? One point is worthy of remark, that throughout the article nothing is said about glandular induration.

The purpose I had in writing this criticism is to question the grounds upon which such deductions as the present are drawn. At the present day, neither the milk nor the saliva *per se* is considered as capable of propagating syphilis; whether they can, may perhaps be proved some day, but certainly, before we accept such statements, the evidence must be based upon surer proofs than are given in this paper.

F. R. Sturgis, M.D.

Selections from Foreign Journals.

ON MIXED BUBO.

By M. P. DIDAY, M.D., OF LYONS.

TRANSLATED FROM THE ANNALES DE DERMATOLOGIE ET DE SYPHILIGRAPHIE, 1872, BY DR. EUGENE PEUGNET.

In inscribing a new name in the syphilographic vocabulary, I do not make any pretension whatsoever to the honor of the discovery. What I am about describing, others have most certainly already observed. I have no doubt found myself more than once confronted by a similar coincidence, without having my attention drawn towards it by its causes, symptomatology, or its consequences. I will, therefore, only have the merit of describing what every one has seen. Nevertheless, it may not be judged useless to describe it more fully; to demonstrate in the *Bubo*, in which is generally seen a positive diagnostic sign, the insidious appearance which, from a want of reflection, and more particularly a want of reserve, may sometimes inspire the practitioner with a false sense of security, always compromising for him, if not dangerous for the patient.

Observation.—A watchsmith, æt. 32, has had frequent promiscuous intercourse, at irregular intervals, for the last six months. About the 20th of June, 1871, he noticed on the left side of the penis, near the reflexion of the prepuce, an ulcer, which enlarged with some rapidity. A physician whom he consulted treated him with repeated cauterizations of sulphate of copper, and dressings of aromatic spirits.

About three weeks after the first appearance of the chancre, a swelling developed itself in the left groin. It was treated with poultices and ointments. Finally, the tumor increasing in size, becoming red, painful, and an intense febrile reaction accompanying it, he concluded to consult me, although the ulcer, which during fifteen days had assumed a phagedenic form, had now a marked tendency towards resolution.

When I first saw the patient, on the 20th of July, 1871, the swelling in the left groin presented all the appearance of a bubo consequent on a simple chancre—in terms more exact, of chancroid adenitis, which was formerly so improperly named

virulent bubo. The swelling was of the size of a hen's egg, cut longitudinally in the centre; adherent to the deep tissues as well as to the skin; red at its apex, and very sensitive to the touch. There is no glandular enlargement of the right groin.

My attention—exclusively drawn by my patient to his most painful ailment, the bubo—did not, I confess it, fix itself sufficiently on the ulcer of the penis, which, besides, presented the appearance of a simple chancre or chancroid in an advanced state of resolution. But, I repeat it, yielding to my first impression, I diagnosticated the chancre more from the appearance of the bubo, and began to treat the latter without considering the nature of the former.

A free incision gave vent to a well-formed pus, mixed with bloody streaks. Although the evacuation of the abscess was as complete as possible, the tumor did not disappear entirely; however, there was nothing which differed with what would have taken place in a similar case. The ulcer of the penis was dressed with the thirtieth solution of nitrate of silver.

The sequences were those of chancroid adenitis, after three days' marked pain of the skin—a tolerably frequent phenomenon, which I have cited as resulting from inoculation of the incised surface—then specific ulceration of the incised wound; suppurative discharge and extreme sensibility of the abscess. I then ordered an injection of the solution of nitrate of silver three times a day. In ten days another point of fluctuation appeared, three centimetres outside of the wound I made an early incision into it, and directed the same injections.

The patient, after the third day, was able to, and desired to resume his occupations. I warned him that if he persisted, his recovery, although certain, would be delayed by such a course. The motion of walking induced slight hemorrhages, resulting each time in an enlargement of the chancroid surface, and a corresponding delay in the cicatrization.

However, thanks to the regularity with which he practised the injections, the patient found that the two abscesses lost their chancroid aspect. The ulcer on his penis had been healed more than a month, and I had discontinued my visits since fifteen days, when, on the 14th of September, nearly three months after the first appearance of the primary ulcer, he requested me to see him.

I examined him, and to my great surprise, it must be confessed, I found a roseolar eruption on the abdomen and forearms; a few copper-colored papules on the penis; three scabs of the scalp, with a moderate enlargement of the posterior cer-

vical glands; finally, two or three superficial mucous patches on the right edge of the tongue,—all characteristic of syphilis, which, according to the statement of the patient, who was very attentive and particular, only existed since ten or twelve days.

My attention was then called to the site of the ulcer of the penis and to that of the buboes. The cicatrix of the ulcer was firm, of a bluish color, and in compressing it between the fingers I recognized a slight parchment-like consistency.

As to the left groin, the two abscesses close to each other, still open, suppurating slightly, but had completely lost their chancroid appearance. I felt with care the engorgement which served them as base. At that time the inflammation of the periglandular tissue had subsided, permitting a thorough examination; and I only found two small tumors, distant about three centimetres from each other, as I have heretofore stated; having each the opening of their abscess at their centre; and there was no engorgement perceptible either around or under these well-circumscribed tumors. The right groin, as mentioned before, was perfectly sound.

I conclude: that as there was no other glandular enlargement of the groins, and that, as a principle, syphilis which has declared itself by a chancre of the penis is invariably accompanied by indurated enlargement of the inguinal glands, it is certain that it is in the same ganglions that specific suppuration occurred, and then induration set in in their altered structure.

"But why say you: Suppuration first, then induration? Why would not induration have preceded suppuration, in the glands as well as in the ulcer of the penis? Are you in a position to distinguish it, since you have not seen either the ulcer of the penis or the glandular enlargement at their inception?"

Suppuration then induration, will I answer. I affirm it without hesitancy, grounding myself on the duration of the period of incubation of the constitutional symptoms of syphilis in this patient.

It is well known that this incubation is about six weeks from the inception of the chancre. Therefore from 20th of June, the inception of the primary ulcer, to the 3d of September, the day on which he observed the roseola, seventy-five days had elapsed, a length of time altogether unusual for the syphilis which accompanies a true infectious chancre, not mixed. Admitting, on the contrary, that the ulcer was first chancroid, since later the induration (the incubation of which is always longer than that of a chancre) manifested itself; then all explains itself according to the customary evolution of syphilis (I avoid the word *laws*), which this disease is not apt to depart from. Thus, for

example, twenty or twenty-five days from the 20th of June for the incubation of the chancre subsequently grafted on the chancroid, which brings the inception of this chancre to the 10th or 15th of July; then fifty days for the incubation of the symptoms called constitutional, which would bring the inception of these to the 1st or 5th of September, the period at which they actually occurred.

It is not without intention that I have insisted on the order in which occurred in my patient the two processes which together constitute *the mixed bubo*. The mixed bubo has in fact no characteristics essentially its own. It follows the course of the mixed chancre, from which it originates. For, as an ulcer can become mixed either by the grafting of a chancre on a chancroid, or the graft of a chancroid on a chancre, so will it be in conditions relative to either of these two cases, that a lymphatic gland can receive either chancroid ulceration on induration, or induration on chancroid ulceration.

The subject whose history I have just related affords an illustration of the second of these two evolutions. It is the case which engenders the greatest chance of error of diagnosis. If the entire progress of disease is observed, it would be difficult, if the groin were only examined, to distinguish in the gland affected with the intense inflammation induced by the chancroid process, and I insist upon it from another concomitant process less ostensible, that of induration. Therefore the coexistence of two lesions—which can, which should be presumed after the existence of a mixed chancre of the genitals, will more frequently pass undetected by the observer, who had only examined the condition of the lymphatic glands.

It would be very different in the case, actually more rare, where a chancroid is grafted on a chancre; the indurative process in the gland would precede the ulcerative. Here one of the two elements which constitute a mixed bubo would exist isolated for some time, without masking the other or being masked by it; and therefore there would be less risk of an error of diagnosis.

I have explained that which is the most natural to admit; that is, that each of these two lesions, chancroid and induration, reproduce themselves in the glands in the same order as they develop in the primary ulcer. But clinical experience gives frequent contradictions to these previsions. Indurated adenitis frequently manifests itself several weeks after the inception of the infectant chancre. The period during which a chancroid bubo may develop itself in consequence of a chancroid is longer still, for it has been observed that the bubo only commences to appear when the chancroid has just cicatrized, the patient con-

sidering himself safe from all complication of the groin. These delays would therefore cause irregularities in the conclusion I was describing, which would frequently prevent the taking advantage in practice of all the rules which, theoretically, seem the most appropriate to prevent errors.

Error, in what does it consist? What are the consequences of it? A double question which can only be explained by the light of modern discoveries.

Since it has been known that a chancre only, and not gonorrhœa, can be followed by symptoms of syphilis, there is not a chancrous individual but asks his physician, and that in the most imperative manner: "Will I have the secondary?"

To this question many practitioners do not hesitate to answer as categorically from the first visit: "Your chancre is soft; you will not have any secondary;" or, "Your chancre is indurated; you will have secondary."

Sometimes this prognosis is contradicted by the result. Why? Does it mean that a soft chancre or a chancroid can be the origin of syphilis? Most certainly not; it means that there is a risk of erring, when the diagnosis is made too early; that such an ulcer, which at first appears to be chancre, and is only a chancroid, may become doubled later with an infectant chancre; it is the mixed chancre.

A singular fact is, that the man whom they reproached the most of having attributed a common origin without knowing the mixed chancre (Ricord), had already warned practitioners against mistakes of that kind. How many times in 1838, pressed by us to explain himself on that point, he would repeat to us, during his instructive bed-side discourses: "Gentlemen, I beg of you, do not make me say that a soft chancre does not cause syphilis; all that I say, all that I assert is, that an indurated chancre is always certain to produce it."

What inspired our master with this wise reserve? Doubtless the remembrance of chancres which he had seen and considered soft, but which later, unknown to him, had doubled with indurated chancre and were followed by syphilis. I repeat, Ricord ignored the mixed chancre, but the truth he taught us was based on the theory of the mixed chancre. Therefore, if our Rollet may have the right to call himself its father and sponsor, was not Ricord the precursor of it?

Whilst speaking of mixed chancre, I forget the great objection made to it by unicists, which seems so peremptory to them that they neglect to seek others. "Your mixed chancre would explain all most logically. It would thoroughly explain how syphilis may have had, in a few cases, its inception in a soft

chancre. But it is truly unfortunate (they condescend to add), what basis can you establish on a *mule* (hybrid) chancre?" Mule, as much as you wish it, although this one has not been less than unproductive. Beasts of burden are made like arguers, each one to his taste.—As to the unicists, if I were compelled to select amongst the solipeds, I would most surely sooner be a mule than.... Pray! do not compel me to say it, and enjoy in silence (the only happiness to which you seem sensible) the apparent confusion which the *intronisation* of the mixed chancre has for an instant thrown into our clinical conclusions.

It must be acknowledged, that if the mixed chancre has given us a more perfect possession of true etiology, prognosis has lost a portion of its wonted precision. A patient presents himself with a recent ulcer. Without hesitancy you say, "It is a chancroid." But he insists upon knowing his chances. Well! whilst formerly you would assure him with the same certainty, "You will be exempt from secondary," now you are only warranted to answer, "This chancre, such as it is, will most decidedly not induce it, but it may change its nature; and for at least twenty-five or thirty days it is impossible to affirm that this change will not take place."

This language, dictated by the force of circumstances, *mark it* well, is not a renunciation of the dual doctrine, an avowal that the two species of chancre can be followed by secondary symptoms. And the proof is, that if the patient is not chronologically in a position to see a chancre grafted on a chancroid; for instance, if at the time he consults you for the latter, he had not had intercourse in two months, you can—and I advise you to do it—promise him with assurance that he will not have secondary syphilis.

Nevertheless, in the present state of customs, and of the customs of society, this condition of security becoming more and more rare, there is, I admit, something painful to see prognosis deprived of one of its elements of precision, "If in the ancient dichotomy *chancre and chancroid* was an error, was it not a more useful one than this new truth?" is the query of old-fogyism. For when it was necessary to abandon it, reliance was at least placed on the indications furnished by the groin as a less deceptive guide. "The bubo remains; with it no ambiguity. If it becomes indurated, Syphilis is there, without doubt. On the contrary, if it ulcerates, it is a no less certain guarantee of future immunity."

Well! that is an illusion which has vanished. As the chancroids are accompanied but once in seventeen times* by

* In my practice, in nineteen months (from July 1868, to February, 1870) I only noted 10 bubos to 170 chancroids.

a specific suppurating bubo, the guide invoked will often fail, since we are aware that the existence of the mixed bubo is as real as the mixed chancre. It is even more liable to cause an error than the latter, for whilst, in the mixed chancre, the two elements chancre and chancroid are exposed, each one can consequently be seen and appreciated under its own aspect and its own nature. On the contrary, in the mixed bubo the inflammatory tumefaction, always intense and persistent, will for a long time completely mask induration, in case, which is very frequent, it has only manifested itself subsequently to the chancroid condition.

The conclusion to draw from this has its importance, and I will permit myself to give the following advice to my younger brethren: When a client consults you for a recent chancroid, you cannot be certain that he has not before this had intercourse at a time favorable to the contraction of a chancre; never mind how simple the present ulcer may appear, do not promise him immunity from constitutional syphilis; without being frequent, an error is always possible, and would not be without danger for your client as well as for yourself.

For him to pass from a feeling of the most perfect security to the certainty of a dreadful evil, is twofold more fearful than to have been struck from the outset with this evil. Hereafter he will only have in you, and in medicine, a confidence shaken by this miscount, consequently incapable of having the moral calm necessary to pass through the tedious sufferings of constitutional syphilis. Finally, he will consider that he has a greater right to complain, for he imagines having lost precious time for the treatment of his syphilis, the effects of which, according to him, might have been prevented by appropriate medication.

For that injury which he believes that he has suffered, he has suffered it through your fault. Oh, what despair, to what extremities may such a conviction push one! If you desire to appreciate it, listen to the following letter which I received a month since, dated and signed:—

"Sir: You treated me, two years since, for a chancre which I had contracted from a prostitute. You said it was nothing, and that I need not anticipate evil consequences. I believed you; I only cauterized the chancre; and two months afterwards my body was covered with an eruption. Seeing that you, whom they call so learned, had deceived me, I lost all confidence in medicine, I consulted pharmaceutists who ruined my body and drained my purse. In the state in which I find myself to-day, without hope of curing a disease which you might have easily arrested if you had taken it in time, I have only one

thought, that of suicide. I have decided it; but I will make you pay by your life the lot which you have caused me."

Gentlemen, accustomed as one may be to the idiosyncrasies of syphiliphobes, one does not sleep quietly on the night following the reading of such a letter. And one is the more impressed, that with a little more attention in making use of a reserve which is obligatory in such cases, this unfortunate one might have been spared cruel sufferings, and one's self an anxiety which might not prove entirely imaginary.

Besides, this is not the only occasion when the exaggerated, inexact conceptions of my patients have placed me in a similar position; and each one of my estimable colleagues in specialty might relate similar examples. It is thus, gentlemen, that we pay for the happiness so much envied by a few of our brethren. Most decidedly the practice of venereal diseases is made to gratify the strongest minds with intellectual and moral pleasures. The subject of our study falls on the senses. We see it, we touch it, we can follow, foresee, predict its phases, its returns, its gravity, its termination; we give to public hygiene, to justice, to families, the most positive and most valuable ideas; at each moment, by a single word, we can restore happiness to the family, security to a soul the prey of the most profound terrors. Professionally we ignore the fatigues, the insomnia, the anxiety induced by general practice; it is the beau-ideal of every practitioner—an office practice—is our assured lot, oftentimes remunerative. But you have just seen it; even under the golden fruit the venomous insect conceals itself; and I do not blush, and I will not regret having related to you the history of one of these most painful stings, if the remembrance of this accident will serve to engrave more fully on the minds of all of you the precept of circumspection in prognosis, the justice and importance of which I have just shown you.*

NOTE ON TRICOPTILOSE:—AN UNDESCRIBED DISEASE OF THE HAIR.

By A. DERVERGIE, M.D.

TRANSLATED FROM THE ANNALES DE DERMATOLOGIE, ET DE SYPHILIGRAPHIE, 1872, BY DR. EUGENE PEUGNET.

The following succinct account of a disease of the hair, a description of which I have been unable to find in the treatises on dermatology, and in the treatment of which I was powerless,

* Read before the Lyons Medical Society.

may be of interest. But two cases of it have fallen under my observation: the first, six years since; the second, last year.

I only give the history of the first patient, who succeeded in curing herself; as to the second, that of a young physician of Paris, to whom I gave some advice, I have not seen him since.

Dr. Lagneau, Jr., to whom I am indebted, consulted me about her in 1864, and gave me the following history in 1866:—

"Madame X——— presents a finely developed, bony, and muscular system. Tall and pale; her face, long and regular, is usually sad. Although broad-chested, she has been long subject to a cough, dyspnœa, and to thoracic pains. Her menstruation is usually regular, but a profuse leucorrhœa, as well as a chloro-anæmic condition, have required at different times the use of various injections, and the administration of bitter and iron tonics.

"Since 1858, then about 30 years of age, she has been subject to slight, although various, affections of the skin.

"Frequently, but temporarily, large red spots, resembling erythema more than urticaria, appeared on the neck and shoulders. Abstension from strongly alkaline soap-washes, too frequently made use of, sufficed to cause these to disappear, and to prevent their recurrence.

"Since the same period, violent and persistent itching of the whole body manifested itself, principally on the shoulders, back, and thighs.

"Besides this pruritus, numerous acne-like pimples, red at their base, pustular at their apex, unless destroyed before their complete formation by scratching, manifested themselves frequently, and in succession, on the shoulders and face, principally on the nose and forehead.

"Also in 1858, at the same time as these various cutaneous affections, she noticed that her hair, which was remarkable not only by its beautiful black color, but also by its luxuriant growth and unusual length, was becoming dry, and breaking off in large quantities. The scalp was free from disease and apparently healthy. The disease seemed to reside exclusively in the hair. *Each diseased hair became dry and brittle; they thickened at various points and then presented fusiform swellings. At each of these swellings, two or three small filaments shortly separated and directed their free extremity either upwards or downwards; finally this disassociation into multiple filaments ended by causing a rupture of the hair, which appeared to be tumefied in its thickness by the formation of a morbid growth, possibly parasitic.*

"This disease first attacked the hair on the upper portion of

the forehead, then extended to the parietal regions, but the occipital and temporal were but slightly involved. In consequence of this disease, *the hair broke into numerous filaments entangled together, and presented not only a crisped, but a felt-like appearance.*

"Whilst the pruritus yielded to the arsenical preparations, the acne persisted until the latter part of last summer, notwithstanding the use of various ointments, and soothing and sulphurous washes. As to the disease of the hair, various ointments of calomel, oxyde of zinc, etc., were applied ineffectually. Glycerine appeared to be of some benefit in giving the hair a soft appearance, but did not have any curative effect.

"You are now familiar with the treatment suggested by you; I believe it was the oil of cade.

"Since a long time, *this lady almost daily cuts, one by one, each hair which presents a diseased appearance.* Under the influence of this cutting, constantly repeated, and possibly the use of an ointment composed of turpeth mineral, cocoa butter, oil of sweet almonds, etc., the condition of the hair has considerably improved. The pustules of acne have also yielded several months since to an active purgative treatment, combined with bitter and ferruginous preparations.—Actually the disease is still persistent, but to a very slight extent; her general condition is improved; the dyspnœa and cough have ceased; the complexion, without being ruddy, has a better color; the muscles also well developed, the emaciation subsiding, and the sadness notably lessened."

Such is the excellent description of the disease by Dr. Lagneau.

I failed to discover any parasitic growth in the hair.

Not wishing to rely exclusively on my own observation, Dr. Gubler, who sends me the following statement, also examined some of it.

"I agree with you as to the absence of any parasitic vegetation in the hair sent to me.

"I also observed the multiplicity of the filaments in which these hairs were divided, coincident with an extreme dryness and brittleness. These hairs appear to divide gradually into a series of cellular elements, which at first extend into their formation; however, without its being possible to *distinguish* their primary cellular structure."

As to the scalp, it was healthy.

The general condition alluded to by Dr. Lagneau seemed to be partially due to the moral depression caused by the deformity of the hair, formerly one of her handsomest ornaments.

Besides this medication, various local applications were made without success. It is to her perseverance that she owes her recovery. The hair fell abundantly with the comb, even with the hand; but the disease gradually subsided, and then the patient was careful to cut each *barbed* hair below its division.

The hairs were not matted; they did not give any offensive odor, excepting at the acme of the disease they had become very dry; the scalp was not the seat of any pruritus.

In the second case, that of the young physician, who was in a healthy condition, the disease was in its incipiency.

The barbed hairs were uncommon in both of them, and were barbed but once or twice.

I was struck with the analogy of this disease with that of Mrs. ——s', and suggested a general tonic course of treatment, also the cutting short of all the hair, without shaving.

I do not know what became of him, but I presume he recovered, as he saw me after having consulted others who did not have any knowledge of the disease.

It is evidently a very rare disease, as I have seen but two cases of it in thirty years' experience, and have been unable to find analogous cases in the treatises on dermatology.

It is not similar to plica polonica, for in the latter the skin is sensitive, painful, sweaty, the hair becomes tumefied and matted, and secretes a glutinous and offensive fluid.

It is difficult to find a name for this disease; want of a known element, it can only be derived from the most striking morbid appearance; the longitudinal division of the hair, similar to the barbs of a feather; for if the hair present at the outset only a slight swelling of the diseased ones, it is very slightly marked. Dr. Lagneau, who observed the disease from its inception, only noticed it. I only saw the division of the hair, varying from 2, 4, 5 or 6 centimetres in length, flattened on one side and rounded on the other, in which a portion of the medullary canal was seen.

My colleague, Mr. Littré, the eminent Greek scholar, to whom I had recourse, had the kindness to suggest *tricoptilose*, derived from θριξ, hair, and from πτίλωσις, like a feather. I accept it with gratitude, should my readers agree with me, or else, if the contrary, find something better.

ON PARASITIC VEGETABLE GROWTHS.*

BY DR. JOSÉ EUGENIO OLAVIDE.

TRANSLATED AND CONDENSED BY E. M'CLURE, ESQ., A.M., BELFAST.

AFTER showing by numerous references that the doctrine of parasitic growths as causing various diseases in the human body is not a new one, and after adducing the recent researches in this regard of Pouchet, Pasteur, and other microscopists, he proceeds to give a *résumé* of the present state of our knowledge on parasitic diseases. The low growths which have been looked upon as the cause of parasitic maladies might, according to Dr. Olavide, be regarded as occupying an intermediate region between the animal and vegetable kingdoms,—a species of bond of union between them, in fact: such growths might be considered, indeed, as living molecules which, according to their *habitat*, may take on various forms. However opinions may differ on this point, the interest attending these growths is more of a clinical than a botanical or zoological character.

Since Schönlein discovered in 1839 the presence of a fungus in Favus, there has been a gradual advance in this branch of medical study. Gruby, Avdonin, Malmstem, Eichstedt, &c., have served to extend our knowledge very much in this department. And from their time up to the present numerous vegetable growths have been discovered, which, fixing themselves on insects and other lower organizations, have occasioned their death. But the principal work which has been brought to any degree of completion is that of the study, classification, and proofs of what is already known.

The micrographic labors of Lebert, and above all, of Robin, with regard to the generation, development, and effects of these growths on the site of their evolution are important, separating, as they do, those parasites which are the producing cause of certain maladies from those which are merely incidentally present. Instances of the latter case are presented in *leptotrix bucalis* and different species of *leptomitus*.

Berg, Baum, Gruby, and Hœnerkopf discovered the *oidium albicans* in some aphthous maladies of the mouth and throat, and proved that this vegetable growth developed itself and propagated the disease in any part of the mucous membrane of the body of which the secretion was acid. It is a fact worthy of note that Hallier, of the University of Jena, and Salisbury, a

* Read before the Royal Academy of Medicine at Madrid, March 17th, 1872.

doctor in the United States, should, while unconscious of each other's labors, come to similar results in their experimental studies on the nature of the virus of disease, of poisonous effluvia, and of miasma. Hallier had been studying for a long series of years the transformation of the vegetable parasites of man. Before him Remak had observed that the *achorion*, a fungus which causes *favus* on the human body, was transformed into *penicillum glaucum* when transferred to an apple deprived of its skin. Spring (*Bulletin de l'Acad. Roy. de Belgique*, 1852, t. xix.) has shown that according to the temperature, the exposure to, or deprivation of air, the *dactylium oogenum* became transformed into *sporotrichum*, into *penicillum*, into *aspergillus*, or into *mucor mucedo*. Hallier found that in vegetable parasites, as in tænia and other entozoa, there occurred what is known as alternate generations. The mould of stale bread put into distilled water went through the following transformations:—

1st transformation—The spores split open and exposed the nuclei, which broke up into numerous granulations. These granulations took on a quick motion in all directions, which caused them to be named *pseudo-vibriones*, or *monas crepusculum*.

2d transformation—At the end of some hours the vibriones ceased to move, and became rounded into nucleated cells, which, according to the position of the nucleus, were called *criptococus*, *artrococus*, or *micrococus*. These became larger and larger, and finally developed into the *leptotrix bucalis*, a vegetable growth which, according to the most recent observations, presides in its ulterior transformation over the fermentations created by the saliva, the gastric and pancreatic juices, in the process of digestion.

3d transformation—The leptotrix breaks up and its detached filaments become *bacteria*. If these are transferred into albumen they are transformed into criptococus, a fact which would go to prove that they are not animals.

4th transformation—This criptococus when placed on moist bread returns back into the first form, *penicillum crustaceum* (mould). If instead of putting the mould into distilled water it were placed in a mixture of sugar and water it becomes converted into granulations called *criptococus cerevisiæ*, which, exposed to the air on the top of the liquid in fermentation, becomes further transformed into various species of the genus *achorion* or of the genus *oidium*. These placed on moist bread return again to the original form. Hallier, developing first the *penicillum* into the *achorion*, was able by inoculation

with it to produce artificially the disease *favus*. The fungus which causes *herpes tonsurans*, called *trichophiton*, is a development of the *ustilago carbo* of Tulasne, a fungus which grows upon corn. The *oidium olbicans*, which causes the *thrush*, is a development of the *stemphilium polyformum*. And the *diplosporion fuscum*, which produces croup, is a development of the *oidium lactis*, or mould of milk.

Hallier found in the dejections of cholera patients a fungus *urocystes oryzæ* which blights the rice on the banks of the Ganges. Typhus and typhoid affections are said to proceed from bacteriæ or vibriones, the agents of putrid fermentation, getting into the blood. The *mucor mucedo*, which finds its site of evolution in decomposing straw, is said by Hallier to produce in man the measles, and in the horse contagious pulmonary maladies; and, finally, Hallier would attribute the syphilitic poison to the *coniothecium syphiliticum*. The researches of Salisbury refer principally to paludic intermittents, measles, and to various blood poisons, as syphilis and gonorrhœa. He says that the saliva, blood, and all the exudations of those affected with ague contain numerous vegetable spores, but only one *constant* species, the *palmella gemiasma*. He shows by experiments that these spores arise above the marshes to a certain height in the morning and descend at night, which explains known facts.

If these spores be removed altogether from their marshy habitat, it has been proved by experiment that they are capable of producing in any locality, and among previously healthy people, intermittent fevers of various types, simply by laying the germs in their neighborhood.

It is indubitable, continues Dr. Olavide, that there are three classes of disease which may be traced to *Phytoparasitismus*, which, although differing from each other much in symptoms, in the course of the malady and in importance, &c., possess one common characteristic, viz., that they are all contagious, whether in their endemic or epidemic form.

In the first class, vegetable parasites, fixing themselves on the skin, hair-bulbs, or in the deep epidermic cells, give rise to local affections, such as the different forms of porrigo or tinia, viz., favus, herpes circinatus and tonsurans, porrigo decalvans, the cloasma, certain epelides, some pityriases, especially the black and versicolor varieties, and the phyca of Poland.

In the second class the vegetable parasites plant themselves on the mucous membranes of the body below the epithelium, or between its two boundaries, and give rise to an affection, local in its origin, but extra-local in its grave issues. These parasites

require abundance of moisture or acid humors for their development, and this fact would explain the quick generation of these growths in lymphatic and scrofulous temperaments who have acid exudations. This class would include the thrush, and probably croup and diphtheria, whooping-cough, certain forms of dysentery, blennorrhagia, &c.; some have even referred phthisis to this origin.

In the third class are to be reckoned those diseases which are called zymotic, as, for instance, eruptive fevers, virulent affections, plagues, and maladies determined by marshy effluvia, or by the ingestion of diseased cereals. Dr. Olavide would divide this class into five varieties:—1st. Including the smallpox, cowpox, measles, scarlatina. 2d. Embracing cholera, yellow fever, typhus and typhoid fevers. 3d. Paludic fevers. 4th. Syphilis, glanders, carbuncles, &c. 5th. Pelagre, acrodinia, and ergotismus.

Dr. Olavide thinks that there is good evidence for the thesis *that contagion is a germ, and that the individual is the soil upon which it is sown.*

This is shown in cases of the first class mentioned above, by the fact that favus, herpes tonsurans, &c., can be produced artificially by inoculation with certain spores. In ordinary cases of these diseases the contagion can be conveyed by contact, by articles of dress, or can exist even in the air, as was proved by the experiments of Lamaire on the atmosphere of infirmaries, in which he found the spores of the achorion and of the trichophyton. The spores are so hard, and at the same time so small, that they can easily penetrate the cutaneous tissues. As an instance of the penetrating power of certain spores, Dr. Olavide adduces the case of fringe growing on masonry, which, nourished entirely from the air and not from the stone, are capable of disintegrating the latter simply by inter-penetration.

The fact that such parasitic diseases are more common in children and scrofulous persons is explained by the greater humidity of the tissues and the slightly acid reaction of the secretions.

The great quantity of albuminous matter which is found in the scabs of favus and in the false membranes of diphtheria, &c., proceeds, in the first place, from the epidermic or epithelial layer which covers them; in the second place, from the cells of the same class, which are mixed with the vegetable substance or with the spores; and in the third place, from the exudation of the reticular covering or mucous membrane, irritated by contact of the fungus, which is nourished at the expense of the albumen.

Parasitic growths maintain their existence, and increase even for some time after the death of the body upon which they have fixed themselves. This fact disposes at once of the theory that would make such growths to be the product of a malady of the body.

The germ theory seems equally firmly established in the second class of contagious maladies. The thrush, for instance, has been now for some time looked upon as a product of the *oidium albicans*. The slight analogy which exists between this disease at certain stages of its evolution and croup, would seem to indicate a vegetable origin for the latter. Its insidious appearance, moreover, without any fever, without any previous intimations; the significant fact of its undoubted contagious nature; its preference for children or for a scrofulous soil; the solid character from the beginning of the albuminous pseudo-membranes; their collocation between the epithelial layers; the want of signs of suppuration or ulceration beneath them; the lack of authenticated cases of cure, except where the false membrane has been expelled or extracted, would all confirm the theory of the vegetable origin of this disease. Add to this, in confirmation, the fact that Hallier, by inoculating on various mucous surfaces and on the denuded skin with the *Diplosporium fuscum*, an alternate generation of the *Oidium lactis*, or mould of milk, was able to produce false diphtherial membranes and the croup itself.

The third class of contagious maladies seem to find their clearest explanation only on the grounds of the germ theory. The presence of the *Torula resfuscans* in the pustules of the small-pox as in the vaccine lymph, would seem to indicate the vegetable origin of the disease. The day may not be far distant, says Olavide, when on this principle an inoculation with the *Urocystis oryza* shall, in producing a benignant cholera, preserve the body against the graver disease; and when it will be possible to produce a mild and preservative form of measles by inoculation with the *Mucor mucede* or *Alga morbilii*.

In exanthematous maladies we have the causes within reach of our observation. Nothing can be more natural than to analyze those cutaneous exudations which have the faculty of producing the same maladies as those from which they rose. Nothing more fitting and necessary than to collect the desquamations in measles and scarlatina, the suppuration of the small-pox and cow-pox, &c., and to subject them to microscopical and chemical examination, so as to encounter the cause of these maladies. *For the cause is there, and remains there for some time, as if awaiting investigation.*

It is certain that many distinguished microscopists have found bacteria, micro-coccus, pseudo-vibriones, in the blood in these maladies; and Hallier, by cultivating bacteria which have resulted from alternate generations, *has reconstructed the species from whence they proceeded, and found them similar to those presented in the skin* in such cases.

There are, it is true, many difficulties in the way of applying phytoparasitismus to account for such maladies, and for the various plague-like epidemics which exist in the world. There is still much to be explained here. How can this theory explain those epidemics which have normal periods of invasion, increase and decline? How can it determine why the yellow fever follows a coast line in its development, while the cholera penetrates into the heart of continents? How can it give us an explanation of the reason why the typhus of foreign countries is unattended with disturbance of the intelligence, while in that of Europe the mind is involved from almost the first stage of the disease? Difficulties like these show the necessity of multiplying on a grand scale chemical and microscopic experiments in this department of investigation.

It may not be out of place to add to Dr. Olavide's remarks on this interesting subject a summary of a recent paper contributed by Hallier to the *Zeitschrift für Parasitenkunde.* He considers the following propositions to be satisfactorily demonstrated:—1. The yeast of beer germinates when it is placed under favorable conditions. 2. As long as the germ-tubes and their branches grow in a moist place, rod-like germ-cells are constricted off at their extremeties. 3. Beer-yeast consequently belongs to the mould fungi, of which it constitutes a one-celled form. It is in no way connected with the ascomycetæ of Reess. 4. Smut (Ustilago Carbo, Talasne), when its germ-tube grows in spots moistened with distilled water, behaves itself exactly like the germ-tube of yeast—that is, rod-like cells are constricted off from the extremity of every fibre. 5. The parasite found in the urine of typhus patients, when placed in a nitrogenized solution of sugar, and other fluids capable of undergoing fermentation, buds like cryptococcus, and increases in the same manner. 6. Cryptococcus cells, moreover, germinate under favorable conditions, and their germs comport themselves like beer-yeast when placed in a moist bed. 7. The germ-cells of Haubner's skin-fungus of the horse behave like those of yeast under similar conditions, *i. e.*, in fermentable fluids they develop cryptococcus cells, which, under favorable circumstances, germinate and constrict off elongated cells from the ends of the fibres.—*El Pabellon Médico. The Doctor.* June, 1872.

Epitome of Current Literature.

Impetigo (faciei) Contagiosa, and Its Fungus.—Dr. Moriz Kohn, of Vienna, states, that for many years he has been accustomed to meet with cases to which the terms eczema impetiginosum were commonly applied, occurring for the most part in young people, and especially affecting the skin of the face, the hairy scalp, and the cervical region. This affection, however, he found, on careful examination, to present many points of distinction from acute eczema. In this latter affection we find a dense or more scattered eruption of little knots, situated on a diffusely reddened and inflamed surface of the skin (eczema papulosum), which, when fully developed, become vesicles (eczema vesiculosum). These first, and a red, moist surface then appears, covered by a thin mucous layer, with hyperæmic papillæ (eczema rubrum, madidans); the fluid drying up, after a time, to yellow crust (eczema impetiginosum). Finally, the scabs drop off, and the part of the skin affected remains red and scaly, though covered with epidermis—a condition named by authors eczema squamosum, or, by many, pityriasis ruber. The principal clusters in eczema are not very sharply defined, the edges gradually passing into sound skin, with scattered knots or vesicles. The disease under consideration (impetigo contagiosa), however, presents very different characters. Here separate, scattered vesicles arise, varying in size from that of a pin's head to that of a small bean, and filled with a clear fluid. The investing membrane of these vesicles is exceedingly thin, the contents, on escaping, feel slippery between the fingers, and dry up to straw-yellow or golden scabs, the size of the original vesicle. On removing these, the surface of the skin appears destitute of epidermis, and discharging fresh fluid. If the scabs are allowed to remain, they become of a dark brown color, and fall off in from five to six days, leaving the surface a bluish-red color, but *not scaly*. The margins of the scab are *sharply* defined, and form small segments of circles. The differences between the two affections may be thus summed up. In acute eczema, on diffusely reddened, swollen (inflamed) skin, clusters of vesicles form; whilst in impetigo contagiosa the vesicles are isolated, and the skin beneath is not inflamed or swollen, and the characters

of the scabs are different. In eczema, the healing process is accompanied by a scaly condition of the skin, which is not the case in impetigo. Lastly, in impetigo there is no itching, and therefore none of the effects of scratching, such as are always seen in eczema. Dr. Kohn proceeds to point out that, not unfrequently, cases occur which seem to show that so-called eczema is contagious, several members of the same family being affected; but he failed to ascertain the presence of a fungus in many cases of eczema that he examined. At length, however, in a case of his (impetigo contagiosa) he found abundant mycelium threads, with four fructification organs, which last formed siliqua-like structures of considerable length and corresponding breadth, presented a double color and several spiral septa in each of the divisions, between which was a highly refractile oval nucleus, with nucleolus. The delicacy of the mycelia and the characters of the organs of fructification showed that it belonged to none of the hitherto described forms of mycosis of the skin, such as favus, herpes tonsurans, eczema marginatum, sycosis parasitaria, pityriasis versicolor. This form of impetigo runs an acute course, and heals up spontaneously in the course of from three to six weeks, without any danger of relapse. It occurs coincidently on various parts of the face and neck, in the form of scattered vesicles, which soon dry up, forming scabs, that fall off in from five to eight days. No treatment is required, but the application of a little simple cerate facilitates the separation of the scabs.— *Wiener Medizinische Presse*, June, 1871; *Practitioner*, September, 1871.

Case of Tertiary Ulceration of the Rectum—Lumbar Colotomy.—The following case, under the care of Mr. Maunder, of the London Hospital, presents features of much clinical interest. Mrs. H., age twenty-five, with an undoubted history of syphilis, has been under Mr. Maunder's observation for the last two years. When first seen, she was the subject of ulceration of the rectum, hypertrophied folds ofskin about the anus, associated with one or two ulcers, and hypertrophied vulva. There was also more or less frequent desire to go to stool, associated with painful defecation and muco-sanguineous discharge. Upon two occasions, outgrowths at the anus have been removed by operation. Mercury and iodine have been used in various forms, but with rather an injurious than a good effect. She has had, also, the opportunity of sea air and country air, but without avail. At the time of her last admission, October 28th, 1871, her symptoms were aggravated. There is a sense of bearing down; frequent desire to go to stool, resulting in a free di s

charge of mucus, highly tinged with blood. The anus is fringed with outgrowths, ulcerated; and about an inch and a half within this aperture the rectum is becoming strictured.

January 3. The treatment has been conducted on general principles, and the gum-elastic bougie used. She is no better, and says her "life is miserable." Mr. Curling was asked to see her, and suggested the exhibition of one grain, or even half that quantity for a dose, of iodide of potassium, as she could not bear larger quantities, and the solution of one grain of nitrate of silver in an ounce of water to be injected.

7th. The stomach has rejected both medicine and food. She cannot bear the injections.

25th. She is worse rather than better, both locally and generally; suffering from frequent attacks of vomiting. Mr. Maunder suggested that lumbar colotomy afforded her a reasonable prospect of recovery, and the patient readily acceded.

31st. Lumbar colotomy was performed in the left loin, patient being under the influence of chloroform. The patient having a tendency to obesity, and the muscles well developed; the descending colon, empty, was found at a good depth from the surface. It was secured to the wound, and opened in the usual way. When the patient was turned upon her back, milk, which had been previously injected per rectum, flowed at the wound.

February 3.—She has always been susceptible to chloroform vomiting, and suffered a good deal consequently. The traumatic fever has been high, and there is now free discharge from the wound.

8th.—Vomiting ceased some days ago; motions pass entirely by the wound; and altogether she is progressing favorably. Since the operation the sanguinolent discharge from the rectum has entirely ceased. 18th.—Doing well.—*Medical Times and Gazette*, Feby. 24, 1872.

Hæmorrhagic Small-pox associated with tetanus.—Dr. Gayton, of the Homerton Small-pox Asylum, reports the following case, which presents features of an unusual character, both as regards the tetanoid symptoms and the amount and character of the eruption:—

C. O—, aged seventeen, an errand-boy, was admitted on the evening of January 6th. The patient was quite well until the 3d January, when he complained of shivering and headache. On admission there were a few variolous papules on the face, trunk, and extremities, of a dark hæmorrhagic character, with numerous dark-purple spots on various parts of the body. He

was completely unconscious; the mouth widely open; the face distorted; and the pupils dilated, the left more than the right. He was constantly shouting out, but no answer could be obtained to any question. He lay upon his left side with his legs drawn up; and when placed upon his back he rested upon the occiput and the heels, the body representing a complete arch. Fluid introduced into the mouth was rejected through the nostrils. Pulse 120; lungs clear. Pressure upon the neck by pinching produced no effect. Swallowing being impossible, enemata of beef tea, etc., were given; and small doses of chloral hydrate produced slight relaxation of the muscular contraction, but otherwise did not appear to do any good. The patient remained in this condition until the afternoon of Jan. 8th, when he died.

Post-mortem examination.—On removing the calvaria, considerable difficulty was experienced, owing to the firm adhesion of the dura mater. The brain was deeply congested over its whole surface, and appeared softer than natural. No fluid was found in the ventricles. On the under surface of pons Varolii, extending along the under surface of the medulla oblongata (where it abruptly ended), was a thickish layer of concrete pus. On the posterior surface of the medulla oblongata there was a similar layer of pus, which appeared to end at the junction of the medulla oblongata with the cord, the superior two inches of which were free from exudation; but, with this exception, the posterior surface of the cord throughout its entire length was covered with an exudation like that already described. The cauda equina was infiltrated with fluid pus. The anterior surface of the cord itself was considerably congested. On examination by the microscope, numerous cells were seen; these cells were full of granules, which disappeared on the addition of acetic acid. No change was observed in the nerve-cells.—*Lancet*, Feby. 10th, 1872.

Syphilitic Growth of right cerebral Hemisphere.—Dr. S. Dowse, of the Highgate Infirmary, reports the following interesting case recently under his care:—

Jane I—, a woman of dissolute habits, aged thirty-three, was admitted into the Highgate Infirmary on Feb. 8th, 1871, with the following history:—Health good prior to her marriage, which took place thirteen years ago, and six months after she contracted syphilis from her husband. No treatment was employed, although it is quite evident from her statement that she must have gone through the primary and secondary stages of this disease. In ten months from the commencement of her married life she gave birth to a child, which grew up healthy,

and, strange to say, quite free from syphilitic taint. In twelve months time another child was born, which lived only seven months, dying completely emaciated from syphilization. These were the only children to whom she ever gave birth; there was no miscarriage. Until four years ago her health does not appear to have been seriously impaired by the syphilitic poison. But at this time she took to habits of intemperance, and during a fit of intoxication lay upon the ground all night exposed to the cold air, and when she became conscious was seized quite suddenly with intense pain over the left side of the head and face, accompanied with ptosis of the left eyelid and convergent squint of the same eye. Her condition at this time was that of general malaise, with severe nocturnal pain in the bones. She then placed herself under the care of a medical man, from whose treatment her health improved greatly. The ptosis of the left lid, but not the squint, entirely passed off. After this, ptosis of the right eyelid succeeded, and this, like the former, soon yielded to treatment, but was followed by paralysis of the muscles of the right half of the tongue.—*Lancet*, April 20th, 1872.

Cases of Molluscum Contagiosum.—Dr. Robert Liveing reports the following cases:—In the early part of last winter I had under my charge two children, a sister and brother, suffering from molluscum contagiosum. The elder, a boy of about thirteen, had on his face one well-marked small tumor about the size of a pea, presenting all the characteristic features of the disease, with depressed top and small opening. I cut it across with a lancet, squeezed out the semi-fluid cheesy-looking contents, and then applied a fine-pointed stick of nitrate of silver to the inside. This was his first and last experience of the disease. The younger child, a girl, who came under my care at the same time, had a dozen or more small elevations of molluscum contagiosum on the face, and two or three on the forearm. Some of these were so small as to be scarcely visible; others were as large as currants; and all were sessile, with the exception of one on the forearm, which was pedunculated. As she was a timid little child, I gave her chloroform, and then divided all the larger growths, especially a troublesome one on the eyelid. The smaller elevations were simply touched with acid nitrate of mercury. When I saw her again, a fortnight afterwards, those which I had divided, and most of those which I had touched with the acid, had dried up or disappeared; but a fresh crop had sprung up, chiefly confined to the face and head. I treated them in a similar manner, and with the same result. This little girl remained under treatment for several months

before the tumors finally ceased to appear. In all, she must have had upwards of a hundred on the face.

In the mean time, three other children—namely, one sister and two brothers—of the same family, came in succession under my care, suffering from the same malady. The youngest was about five years old, and all under twelve. In these three cases the molluscum was almost entirely confined to the face, and lasted under treatment for six or eight weeks. Finally all five perfectly recovered, and in none has the disease returned.

The chief interest of the above record is the occurrence of molluscum contagiosum in five children of one family. From this circumstance, we are driven to one of two conclusions—either that the disease is contagious, or that it is epidemic; for the fact that these children were brothers and sisters will not explain the appearance of the disease at about the same time in all, even supposing that there was an hereditary tendency to its development. Most medical men have for a long time past believed in the contagious nature of this malady, and Virchow and Rindfleisch have quite recently acknowledged its undoubtedly contagious character. Two eminent dermatologists, however—Hebra and Wilson—still consider the question as *sub judice*. It is, therefore, worth while putting on record all cases occurring in groups, as being confirmatory, as far as they go, of the prevailing opinion.—*British Medical Journal*, January, 1872.

Tuberculo-Syphilitic Disease of the Testes—Contraction of Submucous Tissues of the Larynx—Death from Apnœa.—The following interesting case is reported by Mr. Nunn, Surgeon to the Middlesex Hospital. Henry S., aged 25, married; admitted February 7, 1871. He had been twice in the hospital twice before; the first occasion was in November, 1867, and the second in January, 1869. On referring to the registers, the following notes were found of his condition at the times of these admissions:—

"1867. Henry S., aged 21, single; November 5. No previous venereal attack; a primary syphilitic sore on penis six months ago. In admission, an ulcer at left of mouth, others in throat; unhealed sore on glans penis."

"1869. January 17; aged 24, married. Hardness of testicles of twelve months' duration. Fungating four weeks. At lower and anterior part of scrotum, on the right side, is a pale fungating mass the size of a walnut. Both testes hard, and the left much enlarged. An excavated ulcer in throat; voice husky, throat sore, very cachectic-looking."

Admitted February 7th, when he complained of sore throat, huskiness of voice, and weakness. He had a very cachectic

appearance. Both testes were enlarged, especially the left. At the lower and front part of right testis the skin was adherent; at the upper and fore part of left, which was as large as a large pear, there was noticed slight fluctuation.

On February 22 there were symptoms of dyspnœa; and death followed on the 23d, suddenly, he having improved during the day. He was talking shortly before death.

The following is extracted from Mr. Morris's report of the post-mortem examination:—

"Epiglottis, pillars of fauces, epiglottidean folds, and larynx as low as free edges of upper cords, contracted, thickened, and hardened. No vascularity of the parts, and the surface was of a dull, whitish hue. There was no evidence whatever of recent ulceration, but at the base of the epiglottis, both in front and at the sides, were a few somewhat deep depressions, but without any breach of the surface; these were due, no doubt, to the contraction of the submucous fibrous deposit, and consequent puckering of the mucous membrane covering this. No soft œdema of larynx or glottis. Both testes on section showed well-marked whitish-yellow firm deposits in their substance. On opening tunica vaginalis of left side, a small encysted hydrocele was cut into. This was situated immediately above the testis. In this testis were three large and one small whitish-yellow firm deposits, which were surrounded by the tubular structure of the testis. This was also firm, and coarser than normal, and could not readily be teased out. The right testis was of the size of a hen's egg, and in it was a mass the size of a Kentish cob-nut at the lower and fore part of the organ; and running transversely across the cut surface was a distinct whitish-yellow streak of deposit, similar in character and appearance to that constituting the better defined nodules. There was no deposit in any other organ; no nodes on the bones; no albuminoid degeneration of viscera.

There is a good illustration of the tubercular syphilitic sarcocele described by Hamilton, of Dublin, in which, distinct from more common varieties, in which deposit is uniform and outside tubes, it is usual to have patient in cachectic condition, both testes affected, and not usually, as in earlier stage of this instance, the protrusion of a fungus. It is thus distinct from the more common variety of syphilitic testis, in which the deposit is uniform throughout the substance of the organ and outside the tubules, and which affects only one organ, and occurs in patients in good health.

Another feature of interest was the presence of an encysted hydrocele, which is an unusual occurrence in tubercular syphi-

litic sarcocele, but not uncommon in the other form of the disease. The sudden access of death was quite unlooked for. Though on the day before he had suffered from slight dyspnœa, there was nothing in his condition to lead one to expect so rapid a termination of the case. Nor did the post-mortem examination reveal any recent disease about the respiratory tract, although the well-marked results of former syphilitic ulceration were present about the larynx and epiglottis.—*Medical Times and Gazette*, March, 1872.

Herpes Impetiginiformis.—The following account of a rare form of skin disease occurring during the course of pregnancy will be read with interest:—

At the beginning of last June a woman twenty-five years old, and in the ninth month of pregnancy, was admitted into Professor Hebra's small-pox ward, under the supposition that she was suffering from varioloid. She had been ailing for three weeks, but her illness had only taken an acute course a few days previously. It began with lassitude and loss of appetite; she soon became so weak as to be unable to leave her bed, and had fever and repeated rigors. It was soon found that her disease was not small-pox, and she was transferred to a ward for general skin affections. At this time the character of the eruption was clearly marked. At the root of the neck, on the front of the chest over the sternum, and around and between the mammæ, groups of small vesicles had formed on an inflamed base. The vesicles had enlarged; their contents became cloudy and yellowish; a number of vesicles had coalesced, and, bursting, had formed brownish yellow and adherent crusts. The skin around the vesicles was intensely inflamed. The eruption had first appeared on the external genitals. The labia majora, mons veneris, and the neighboring skin of the abdomen and inner part of the thighs were, on the date of the patient's transference to another ward, covered with large, yellowish crusts, and vesicles in various stages of development.

In the course of the following week groups of similar vesicles appeared on the face, over the whole chest and abdomen, on the arms (where the patient complained especially of severe pain), and on the front of the thighs and legs. Thus far, more than a fortnight after admission, the eruption had reached its height, and the front of the body was almost entirely covered with yellowish crusts; these began to dry up and exfoliate, first at the root of the neck, without the occurrence of ulceration and loss of substance.

At this time were found near the ankles several large bullæ, containing slightly cloudy fluid, resembling those of pemphigus.

The patient, who had some days previously complained of "cold along the back," and had a pulse of 96, began to feel warmer; her pulse was found to be 92. She had repeated rigors, and was so weak she could not raise herself in bed. No observations were made of her temperature. Her treatment throughout was mainly expectant; she was allowed chicken and wine, and anything she fancied. For the pyæmic symptoms she took quinine, and a lotion composed of six grains of perchloride of mercury and one pint of lime-water was applied to the genitals. As the pain prevented her sleeping, she was ordered half-drachm doses of chloral hydrate at night. On June 15th, Professor Hebra had, as an experiment, the left leg bandaged with strips of diachylon plaster, but without any striking result.

On June 17th the patient was safely delivered of a healthy child. This was her second pregnancy; in the first she miscarried. On the 19th she was going on well; was cheerful, and the lochia were normal. The eruption was scaling round the neck. On July 5th she had a slight attack of hospital dysentery, and was treated with tincture of perchloride of iron in fifteen minim doses three times a day, and with dilute sulphuric acid. At this time she had no sign of any fresh eruption and was scaling rapidly. On July 25th, when the last note was taken, she was almost convalescent; her face (which was the part least affected) was quite normal, as also her chest, and the remainder of her body was rapidly becoming free from scales.

In some remarks upon this case, Professor Hebra said that, in his very considerable experience, he had only as yet seen five such cases, of which this was the fifth. They all occurred in women at full time except one, which took place during the course of pregnancy; the first four all terminated fatally. They all resembled one another in beginning in the region of the genitals; in their general diffusion over the body in a later stage; and in the herpetic character (groups of vesicles on the same inflamed base) which they presented. They were all accompanied by fever and rigors. The disease might be called "herpes impetiginiformis," from the appearance of the crusts. There was no restriction to the course of certain nerves, as in an ordinary zoster. Finally, it was a most dangerous disease.—*Report from Vienna General Hospital*, *Lancet*, March 23, 1872.

Pathology of Herpes Zoster.—Dr. O. Wyss had the opportunity of carefully watching during life, and examining after death, a patient of von Witte's, of Rheinau, suffering from herpes. The patient was sixty-eight years of age, and on September 16th he had headache and febrile symptoms. On the 19th scattered vesicles appeared of herpes labialis. On the 20th

the right side of his forehead, and nose and cheek as far as to the border of the lower jaw, were injected. On the 22d the right eye itself was inflamed, and on the 23d the left. Two days afterwards an eruption of herpes appeared on the right side of the face, which affected the cornea and conjunctiva. On the 28th the patient died. The post-mortem examination was conducted with great care. The herpetic vesicles and scabs were very accurately limited to the right side, and to the parts supplied by the first branch of the right trigeminal nerve. The left eye was perfectly normal. The nerve above mentioned was found to be broader and thicker than that of the left side, of a deeper gray-red color, of softer consistence, and with the several nerve fasciculi separated by grayish-red soft tissue, containing many vessels. This alteration in its character extended from the point where it entered the orbit to the finest branches, as far as they could be traced with the simple lens. The other nerves traversing the orbit were perfectly healthy. Outside the orbit, and extending from it to the ganglion Gasseri, the first branch of the fifth was surrounded by extravasated blood. On the proximal side of the ganglion Gasserianum the fifth nerve was normal in appearance. The ganglion itself was larger and somewhat more succulent than the left; upon its inner side was a red mass that appeared to be caused by an ecchymosis. The proper substance of the ganglion was not of a yellowish-white color, but bright red. The fifth nerve was healthy at its apparent origin from the brain, where it entered into the Gasserian ganglion. There were numerous ecchymoses. These were especially visible also in that part of the ganglion whence the first branch of the fifth arises, whilst that from which the second and third branches arise was little altered. Microscopical examination of the skin showed that the papilla and the corium were strongly infiltrated with cells. In some parts the rete was preserved; in others, together with the upper layer of the corium, destroyed. The fasciculi of connective tissue on the forehead exhibited an infiltration of cells, especially in the vicinity of the vessels of the sweat-glands; where the cutis was most deeply ulcerated these fasciculi presented a lustrous, homogeneous character, corresponding to the vitreous swelling of Neumann, or hyaline degeneration of O. Weber. The cornea was abundantly infiltrated with cells, especially in its upper layers; the ulcerations of the surface penetrated to the substantia propria. This is an important communication, and shows conclusively that herpes zoster is a consequence of inflammation of the corresponding spinal ganglion and of the nerve traversing it.—*Centralblatt*, No. 7. *Lancet*, May 4th, 1872.

On the Question of the Contagiousness of Leprosy.—In answer to a communication sent by the Government to the Royal College of Physicians, the committee to whom the subject was referred have reported that two instances were referred to, the one in which a leprous woman in the Asylum in the Island of Curieuse was supposed to have been attacked by leprosy from cohabiting with male lepers, the other in which the medical attendant of the asylum also was supposed to have contracted leprosy "in the exercise of his professional duties," from cohabitation with leprous women in the same asylum. The leprosy committee expressed their opinion that as the sister of the woman was a leper at the time the woman left Africa, the disease in the latter might very likely have been engendered in Africa in her also, and that there was some doubt whether the medical attendant referred to was really a leper, the testimony on this point being altogether unsatisfactory. They therefore found no reason for recommending, in consequence of the facts before them, the college to alter its views already expressed in leprosy report as to the non-contagiousness of the disease.—*Lancet*, June 1st, 1872.

Scarlet Efflorescence on the Skin produced by the External Application of Belladonna.—Dr. J. G. Wilson, Professor of Midwifery in Anderson's University, reports two cases in which a scarlet efflorescence on the skin, which was at first supposed to be due to scarlatina, was produced by the application of linimentum belladonnæ to the breasts, for the purpose of arresting the secretion of milk.—*Glasgow Medical Journal*, February, 1872.

A Form of Lupus similar to Epithelioma occurring on the Extremities.—Prof. Busch, of Bonn, describes this disease, which, microscopically, cannot be distinguished from epithelioma; still differs from it in the peculiar manner of its progression, in the fact that the adjacent lymphatic glands do not become involved, and in the mode of cicatrization and the contraction of the skin and joints resulting therefrom, in which particulars, as well as in its curability and the absence of danger to life, it strongly resembles lupus. Several similar cases have been observed by Profs. Simon and Wernher, in one of which the amputation of the diseased arm became necessary.—*Transactions of the First Annual Congress of German Surgeons*, April, 1872.

The Minute Appearances in the Tissues on Application of the Tincture of Iodine.—Dr. Schede, of Halle, reported the results of a series of experiments on animals, the

result of the iodine being first hyperæmia, then swelling, effusion of red corpuscles, which are partly taken up by the lymphatic spaces, and partly organized into connective corpuscles, and gradually undergo fatty degeneration, cessation of circulation, and finally, if the application be repeated, necrosis of the skin and subcutaneous tissues.—*Transactions of the First Annual Congress of German Surgeons*, April, 1872.

The Pathogenesis of Strictures and the minute Anatomy of the human Urethra.—Dr. Stilling, of Cassel, presented an interesting paper on the above-named subject, in which he pronounced the penis, according to his microscopic examinations, to be an organic muscle, and the process of erection the result of arterial hyperæmia, and not of venous congestion, as is now generally supposed. The corpora cavernosa are composed entirely of organic muscular fibres, which surround the arterial ramifications and divide the sinuses by means of septa; these sinuses themselves are nothing more than the dilatations of the capillary branches of the arteria dorsalis penis, and open respectively into capillary branches of the veins of the penis. The organic muscular fibres pass into the mucous membrane of the urethra and thus give contractility to the canal. An inflammation of the urethra causes a degeneration of these muscular fibres in a greater or less degree, and thereby the contractility and diameter of the canal become impaired. The microscopic specimens illustrating these assertions were demonstrated to the Association. Further observations will of course be necessary in order to decide this question.—*Transactions of the First Annual Congress of German Surgeons*, April, 1872.

Action of Light in Skin-diseases.—Dr. S. H. Potter, of Hamilton, Ohio, says that it is a matter of extreme regret that in the treatment of eruptive diseases—as measles, scarlatina, erysipelas, urticaria, small-pox, and many others—greater stress has not been laid upon the importance of the exclusion of light. If daylight be excluded from the room, in the early stage of the disease, and a candle or a mild light be substituted, small-pox may be arrested at the papular or vesicular stage, and never become purulent at all. In acute cutaneous erysipelas the influence of light upon the skin, in its exalted sensitive condition, may cause it to spread to an almost unlimited extent. In most acute forms of inflammatory affections, and those from wounds of the skin, with exalted heat and dryness of surface, light should be excluded from the patient as sedulously and for the same reason as alcohol in any form, or any other direct and well-known powerful stimulant. On the other hand, light, when

needed as a stimulant and tonic, is one of the most potent agents—as in cases of debility or anæmia, any enervated condition when there is paleness, coldness, sluggish circulation, and when the skin has lost its proper elasticity, and needs stimulating and toning.—*Chicago Medical Times.*

An Extensive Nævus.—Dr. Geo. H. Hubbard, of Lansingburg, N. Y., records an extensive case of nævus in the person of an Englishman, aged 40 years. The tumor measured about twelve inches in length and eight in breadth, and extended from the second dorsal vertebra nearly to the crest of the ilium, and appeared to be about two inches at the most prominent part. It was ligated successfully, but, seven months after the operation, the patient died, exhausted. This nævus is the largest of which he has obtained a knowledge; and, after a mature consideration of the whole subject, he has decided that very large nævi should be let alone.—*Transactions of the New York State Medical Society*, 1870.

Cancer in Males and Females.—Prof. John Le Conte, of the University of California, has an important paper on "Vital Statistics; Illustrated by the Laws of Mortality from Cancer," in which he has compiled many facts concerning the relative frequency and increase of cancer in the two sexes. In both England and France the annual mortality from cancer among females exceeds that among males nearly in the proportion of three to one. In relation to organs affected, M. Tauchou's researches show that the uterus is most liable to cancer, constituting about 32.8 per cent. of the total deaths from the disease. The stomach comes next, 25.2 per cent.; then the mammæ, 21.7 per cent.; and then the liver, 6.3 per cent. Among females, the mortality from cancer uteri is about 43 per cent. of the total deaths from the disease in that sex, and the mammæ 28.4 per cent.—*The Western Lancet.*

Therapeutical Notes.

Treatment of Syphilis by hypodermic Injection of Mercury.—The treatment of syphilis by the subcutaneous injection of mercurials—usually corrosive sublimate—has attracted much attention among syphilographers. The method has found both supporters and opponents. The views entertained of the method by Prof. Sigmund, the well-known syphilographer of Vienna, in which he examines the subject with skill, care, and impartiality, cannot fail to be of great interest. It will be seen from the subjoined abstract, that while he does not hold with the more enthusiastic supporters of the method, he sees so much possible good in it as to lead him to regard it as a remedy worthy of further trial, with a view to the determination of its proper place among our therapeutic agents.

He first speaks of the disadvantages said to attend the subcutaneous injection of mercury. These are: the occurrence of tedious subcutaneous infiltration; inflammation, and abscess; pain during the process of injection; the details and difficulties of the process; disturbances of circulation and respiration; stomatitis and salivation; and the inferior success of the method as compared with other plans of treatment.

Subcutaneous infiltration at the seat of injection, he says, no doubt occurs, but it does no harm: the effused material is soon completely absorbed. The occurrence of inflammation and abscess is, on the other hand, very troublesome, and interferes with the treatment; but it depends solely on the manner in which the injection is made, the degree of concentration of the solution used, and the condition of the patient after the operation. Dr. Sigmund has used the subcutaneous injection in more than two hundred cases in private and hospital practice, and in two only has there been abscess. His patients have been of both sexes, of various ages and constitutions, and had syphilis in various forms. In some cases, as many as thirty injections were given; generally one each day, sometimes at intervals of two or three days. The injection in almost all the cases consisted of four grains of corrosive sublimate to the ounce of distilled water, as recommended by Lewin. The injections were generally done on the trunk, sometimes on the arm, care being taken to avoid parts that would be lain on or exposed to pressure or motion; and rest and simple care of the part were

enjoined. When inflammation and abscess have occurred, it has arisen, in his opinion, not from the operation, but from the patients having been allowed to go about their ordinary business immediately or a few hours after the injection, and from the part operated on not having had sufficient rest and protection.

The pain produced by injection Dr. Sigmund has found to vary much in different cases; but in the great majority it was slight and transient; in most it was at once relieved by cold applications. In some cases, however, the pain is severe and of long duration, no matter where the injection may be done, or how gently. Such patients are not fit subjects for subcutaneous injection; even the addition of morphia to the solution does not relieve the pain.

The difficulties of the operation are scarcely worth notice. Good instruments can be easily obtained, and can easily be kept clean and in order. There is no difficulty in the operation itself.

Stomatitis and ptyalism are liable to occur if the patients do not carefully and often clean their mouths. Dr. Sigmund has found the gums slightly affected in a few only of his patients; but he takes care to use prophylactic measures.

Disturbance of respiration and circulation, or any general disorder of importance, as a result of the action of corrosive sublimate, has never come under his observation. The continued use of all mercurial preparations is attended by a moderate increase in the frequency of the pulse and rise in the cutaneous temperature. Disturbance of the digestive organs often occurs, but is generally clearly traceable to errors in diet. Perspiration and the urinary secretion are but little affected; and those cases in which they are said to have been disturbed in consequence of the injection must be regarded as exceptions.

In speaking of the alleged advantages of the hypodermic treatment, Dr. Sigmund says that one of them—the possibility of the patient continuing to exercise the part operated on and to go on with his ordinary labor—is but limited. He insists on the necessity of rest and care of the part, for a time at least, not only because a neglect of this precaution is liable to lead to the occurrence of inflammation and abscess at the seat of injection, but also because in many cases it is necessary to apply local treatment to the syphilitic manifestations. He more strongly insists on the necessity of care, as he teaches that free air and exercise are integral parts of the treatment of syphilis.

An essential advantage of the subcutaneous injection of mercury, and one that cannot be sufficiently insisted on, is the precision of the remedy. The surgeon knows the when, the how

much, and the where, of the introduction of the medicine into the system; and he can determine most accurately the locality, the time, and the interval for repetition of the dose. Further, the patient is saved from the immediate disturbance of the digestive organs which is liable to attend the administration of mercury by the mouth.

The two factors, Dr. Sigmund says, that are necessary before a long and repeated series of observations can enable a definite conclusion to be arrived at as to the value of the treatment, are, on the one hand, perfection of the mechanical details of the operation, and careful attention to the diet and hygienic condition of the patient. No clinical observer is as yet in possession of facts whereon to ground a final judgment of the method. We find—unfortunately not unfrequently—that in certain cases of syphilis all the ordinary means of treatment fail, or are contraindicated; and hence subcutaneous injection must be regarded as a valuable addition to our resources. According to Dr. Sigmund's experience, it may be employed in simple papular, pustular, and squamous syphilides, in simple catarrhal affections of the fauces and larynx, in diffuse inflammation of the joints, muscles, tendons, periosteum, and perichondrium, and in syphilitic neuralgic affections; and it may also be tried empirically in cases where other means have proved unsuccessful, or where for some special reason on the part of the patient their use is contraindicated. To cases of the kind here enumerated, he would for the present limit its use in private practice. Clinical observation, on the other hand, must take a wider range. As far as his observation—which, he says, is as yet limited—has gone, Dr. Sigmund is led to consider as unfounded the assertions put forth by the supporters of the plan, that the development of secondary syphilis is prevented by employing subcutaneous injection in the earliest stage—that of induration. In all the cases which he has observed, the consecutive cutaneous and mucous syphilides have appeared just as they do in patients who have been treated only locally or not at all. One great advantage which attends subcutaneous injection, in common with friction and fumigation, is the possibility of giving at the same time internal remedies, such as quinine, iron, the iodides, cod-liver oil, etc. This advantage is not a small one; for such combination is often of the highest value in syphilitic cases.

The determination of the relative value of the hypodermic injection of mercury in syphilis is, Dr. Sigmund says, a very important question, and one that can only be solved by continued experience. Before a correct judgment as to the value of the treatment can be arrived at, observations must be carried on

for several years, on cases of syphilis presenting all the varied forms of the disease. He has, he says, hitherto specially advocated mercurial inunction; but he would cease to do this, if extended experience showed him an equally good or a better means of treatment.—*British Medical Journal*, Oct. 21, 1871.

The Abortive and Methodical treatment of Bubo and other Acute and Subacute glandular Enlargements of the Groin and Thigh.—Professor Zeissl, of Vienna, describes the great advantage which he has derived from what he calls the "abortive and methodical treatment" of bubo and other acute and subacute glandular enlargements of the groin and thigh. "Every one," he observes, "who has had much to do with such is well aware of the difficulties and sometimes even dangers which they may give rise to, and cannot but be anxious for a means which may prevent their suppuration and its tedious consequences." Engaged in Hebra's division of the Hospital for more than twenty years, Dr. Zeissl was always on the look-out for some such means, and had often, both in private and Hospital practice, derived remarkable benefit from the application of the acetate of lead, as recommended by Behrend and Cooper. In 1869 he was appointed to take charge of the syphilitic wards in the Hospital, some of which had a bad reputation (of late much redeemed) for their sanitary conditions. He soon found that such conditions told sadly on open buboes, which became frightfully gangrenous. The proximity of these wards to the dead-house seemed one cause of their insalubrity; and in order to avoid the contact of wounded surfaces with the infected atmosphere, the experiment was tried of opening and discharging buboes under water, and then closing them with a gypsum bandage. In some cases primary union took place, but in many others the cavity filled again, and the skin covering the abscess became so thinned, in spite of all preventive measures, that at last it had to be opened over a considerable extent, either by cutting instruments or caustics. Every attention to cleanliness and ventilation, etc., the application of carbolic acid according to Lister's and other plans, all failed to secure the prompt healing of such ulcers.

The author undertook no operation upon these inflamed glands without fear and trembling, so that at last he resolved to treat the buboes with lead, which he had found so useful in private practice, and only opening them quite exceptionally. This treatment has now been pursued during two years in the following manner:—When, on first seeing the patient, hope may still be entertained of preserving the skin intact, it is carefully cleans-

ed from all adhering dirt and plaster, depilated. The patient then goes to bed, and a compress which has been soaked in a solution of basic acetate of lead is applied to the tumor, wetting it as often as it becomes dry. Even at the end of three or four days the skin covering the enlarged gland feels thicker and firmer—tanned, as it were. The fluctuation, which on close examination was at first perceived, either as gradually disappeared altogether or became much less perceptible; and on pressing the tumor with the fingers it is found already to impart a doughy feeling. If the fluctuation on the commencement of the treatment is very plain, or becomes so, a puncture in a perpendicular direction by a pointed bistoury should be made into the thinnest portion of the skin, taking care that the puncture does not become an incision, and is only large enough to secure the gradual and continuous discharge of the pus, which should be aided by moderately firm pressure by means of a compress soaked in the lead, and over which a roller is applied. The bandage also brings the excavated skin into contact with the underlying parts, and favors their union. The replacement of the purulent contents, which first flow out after a few days' application of the bandage, by a more serious lymph-like fluid, is always a favorable circumstance. Care must be taken to prevent any of the linen used in the dressing entering into the aperture, as repeated irritation of this kind may easily convert the simple puncture into an ulcer. If the swelling consists of the (so-called) multiple bubo, and a spontaneous rupture has already taken place at one or more points, the following iodine plaster may be advantageously substituted for the lead compress:—Plumb. iod. ʒ j., ext. bellad. ℈ij., emp. diach. c. ℥j., ung. elemi q. s. ut f. empl. molle. As long as only a thin lymph-like fluid is discharged through the puncture or spontaneous apertures, and no symptoms of renewed inflammatory action are present, and still more if erysipelas be prevalent, we should abstain from any removal of the skin. But if one or more sources of pus lie deeply under the facia superficialis, the cavity of the abscess should be laid open, employing the Vienna paste or the knife, with the usual precautions. In many cases a simple incision of the skin will suffice; and the author has met with others in which the excavated skin occupied several inches in extent, conveying the impression that it must perish, and yet the lead application has preserved it and led to its solidification.

In this way, in now more than 100 cases of indolent or acute buboes, whether arising from infection or from mere catarrh, the author has succeeded in preventing suppuration and in obtain-

ing, very often without any puncture, absorption of their contents in the course of from six to ten weeks. Gangrenous glandular tumors are now of the rarest occurrence in the Hospital, if they had not been admitted when already in that state. Just as rare now are those deep ill-conditioned sores, burrowing fasciæ and sheaths of vessels, with all their dangerous consequences. The dressers and nursers now have to spend much less time over these cases. Professor Zeissl, therefore, is very anxious to make his mode of treatment more known—not that he believes he has made any discovery, for the same means have been employed by Wallace, Cooper, and others. One peculiarity he claims is that of not confining the treatment to mere indolent bubo, but of employing it also in the acute and subacute venereal bubo.— *Wiener Med. Wochenschrift—Medical Times and Gazette*, May, 1872.

Therapeutic uses of Hydrate of Chloral.—Dr. Oscar Liebreich, in a third edition of his treatise on hydrate of chloral, gives a general view of the classes of disease in which observation has allowed a general opinion to be formed as to the merits of the remedy. Numerous experiments in all countries have established the fact that chloral has the property of producing sleep in all pathological states where it is desirable to obtain this; and it does this without giving rise to any mischievous results. Some special peculiarities with regard to its action have, however, been observed. In a case of gout, for instance, a dose of hydrate of chloral produced excitement, but when the patient had been treated with carbonate of soda for a week, the same dose acted as a hypnotic. This, according to Dr. Liebreich, was due to the circumstance that at first the formation of urate of soda deprived the blood of its normal amount of alkali, and thus prevented the transformation of the chloral into chloroform. On the other hand, and in accordance also with the theory of transformation of chloral, it has been noticed that in typhus, where there is an excess of alkali in the blood, small doses of chloral readily produced sleep, while larger (even moderate) quantities gave rise to symptoms of poisoning. With regard to the use of chloral in operative surgery, the results of Dr. Liebreich's experiments have led him to expect with certainty that the drug may be used in such a way as to produce sufficient anæsthesia for even severe operations on the human subject. His observations of animals have shown him that there is a marked difference between a poisonous dose and the quantity sufficient to produce complete anæsthesia; and this meets the objection to chloral as compared with chloroform, that it is not introduced gradually into the system, but at once.

Although experiments have shown that small doses of chloral have little influence on the circulation, Dr. Liebreich advises caution as to its use in heart-disease. In trismus and tetanus larger doses are indicated, as small quantities do not produce the necessary action on the spinal cord. Hydrate of chloral has been found to act beneficially in a number of cases of puerperal convulsions; and Dr. Liebreich is disposed to explain this by accepting Frerich's theory, that the convulsive attacks are connected with the transformations of urea into urate of ammonia, and by supposing that, besides the production of chloroform, there is a formation of hydrochloric acid which neutralizes the ammonia. Among other diseases in which there has been a general agreement of opinion as to the beneficial effects of hydrate of chloral, Dr. Liebreich mentions senile insomnia, delirium tremens, nervous asthma, chorea, dental convulsions in children, sea-sickness, etc.—*British Med. Jour.*, March, 1872.

A New Mode of Administering Copaiba.—In chronic cases of gonorrhœa, Dr. J. H. Wehner, of Germantown, Pa., has obtained the best therapeutical action of copaiba, with the entire absence of its nauseating and other disagreeable effects, from the administration of that drug combined with opium, in the form of a rectal suppository. The subjoined formula is recommended: ℞. Copaiba, f ʒ vj.; Opii pulv., gr. vj.; Olei theobromæ, Cetacei, āā ʒ iss.; Ceræ albæ, gr. xl. to lx. M. ft. suppositories No. xij. S. One to be introduced into the bowel morning and night.

If constipation occurs it may be readily overcome by a moderate dose of Rochelle salts.—*Med. and Surgical Reporter.*

Removal of Non-Syphilitic Condylomata, or Warts.—Dr. Duhring, Lecturer on Diseases of the Skin, University of Pa., advocates "Rochard's Ointment" as a mild caustic to remove non-syphilitic condylomata or warts. ℞. Iodine pulv., gr. vij.; Hydrarg. chlor. mit., ʒ j.; Adipis, ʒ ij. Misce unguentum.—*New Remedies.*

Styptic Cotton.—Dr. Robert Rohland, of New York, has prepared a Styptic Cotton (*Gossypium Stypticum*) which promises to be a useful addition to the means of arresting passive hemorrhages from extensive surfaces. It has the advantage of cleanliness and convenience, and possesses no irritating properties. It is prepared by boiling the cotton in a solution of alum and gum of benzoin, and after the cotton is dried and picked, it is saturated with a solution of perchloride of iron. It is put up in boxes of convenient size.

About Books.

EARTH AS A TOPICAL APPLICATION IN SURGERY. By ADDINELL HEWSON, M.D. 12mo., pp. 309. Philadelphia: Lindsay & Blakiston. 1872.

THE author presents in a clear and lucid manner the results of his experience in the use of earth in the treatment of surgical diseases and injuries. The subject has been discussed from various stand-points during the past three years, and the book will attract attention not only among those who honestly seek for information, but among many who will do little more than glance over the pages as a matter of curiosity. The author gives, in detail, the results of ninety-three cases. His remarks upon the cases he records are divided into—I. Effects as to the contact of the earth with the part; II. Effects naturally incident to the cases; III. Its power as a deodorizer; IV. Its influence over inflammation; V. Its influence over putrefaction; and, VI. Its influence over the healing processes. The author regards the results in each case as generally favorable to the earth treatment. The method of applying earth is very simple: yellow clay or clayey earth, such as underlies large portions of Pennsylvania, is well dried, —not roasted,— finely powdered, sifted, applied directly to the surface of the wound and retained there by any form of surgical appliance, and the dressing is changed as often as it becomes saturated with the discharge. One third of the volume is devoted to an elaborate consideration of the *modus operandi* of the philosophy of the treatment—which is claimed to exist in the deodorizing power of clayey earths, and in the properties they possess of furnishing to the tissues the substance known as ozone. The author has treated his subject in a fair, able, and candid manner. It is a valuable clinical contribution; and deserves serious attention from those whose opportunities will permit of testing the merits of the treatment claimed by the accomplished author. The book is illustrated with four photographs showing the results of cases after operation. The paper, printing, binding, and general appearance of the work are creditable to the publishers.

RESTORATIVE MEDICINE. An Harveian Annual Oration delivered at the Royal College of Physicians, London, on June 21, 1871. By THOMAS KING CHAMBERS, M.D. With two sequels. 12mo, pp. 85. Philadelphia: H. C. Lea. 1871.

THERE is a larger spirit of culture and scientific refinement evinced in the little 12mo volume before us; than is often found in works of much larger pretensions. The essay consists mainly in a review of the present state of medicine, and valuable suggestions—the result of a great and well-nursed

experience. The author acknowledges the reputation he has acquired in this country, in a graceful and felicitous manner. He says: "Across the Atlantic and Pacific there are bands of relatives whom we are much prouder to claim [than those in Europe], and to exhort to mutual love and affection in a tongue that recalls the fact of blood being thicker than water. This year the Oration, though delivered in England, shall be printed and published in America first." In speaking of therapeutics, he justly observes that "The chairs of materia medica would be better employed in teaching a class how to observe the action of medicines than in discussing varieties of cinchona bark or the shape of senna-leaves." The force and truthfulness of these remarks must be patent to every one who has seen many of the prescriptions ordered to "cure diseases," and emanating from graduates of our large and ancient colleges. The fault lies not with the young graduates, but with the inexperienced and ill-qualified teachers. The two Sequels consist mainly, 1st, of a dissertation on the details of restorative medicine; and 2d, of remarks on the much-vexed woman question. The book is an exceedingly interesting one, and will afford pleasure and instruction in perusal.

PRACTICAL LESSONS IN THE NATURE AND TREATMENT OF THE CONTAGIOUS DISEASES. AN ACCOUNT OF THE PRIMARY SYPHILITIC POISON, AND OF ITS COMMUNICABILITY. By JOHN MORGAN, M.D. London: Baillière, Tindall & Cox. 1872.

MR. MORGAN has been particularly known to the profession during the past three years as the author of a number of articles, the aim of which was to prove that "soft sores" were derived from the purulent vaginal secretions of syphilitic women, and other contributions treating of the various manifestations of syphilis. These papers failed to attract much attention, consequently the author's observations have not been largely quoted. Among the imperfections of the papers most noticeable, is a tendency of their author to verbose disputation. The book before us may be taken as a collection and amplification of the author's papers, besides aiming to point out certain clinical features of syphilis, and the author's special views as to the propagation of venereal diseases. These views we have already given in a previous number of this JOURNAL. Judged by any standard, the work is certainly a failure; the descriptions are of a loose and rambling character; the instructions relating to diagnosis are deficient; and there is evidence that many of the lesions described as syphilitic, do not properly belong under that head. The author's deficiency in the literature of his subject is painfully apparent. The general sensational character of the work may possibly render it attractive to the public, but will scarcely enhance its reception by the profession.

REMARKS ON STRICTURES OF THE URETHRA OF EXTREME CALIBRE, with Cases, and a Description of New Instruments for their Treatment. By F. N. OTIS, M.D. Pamphlet, pp. 25. New York: D. Appleton & Co. 1872.

THESE remarks are mainly intended to bring before the profession an instrument which the author claims to be of special advantage in the treatment of "Strictures of the Urethra of Extreme Calibre." The Strictures "of Extreme Calibre" spoken of by the author, are merely strictures that have invaded in a very limited degree on the natural calibre of the urethra, and that will admit of the passage of a No. 10 bougie or Sound (English scale). The histories of the cases cited by Dr. Otis will furnish the reader with additional reasons for implicit faith in the teachings of Sir Henry Thompson, Holt, Volemier, Maissonneuve, and other continental surgeons. A few words on the exercise of judgment, and an intelligent application of the principles as well as the instruments of the surgeons above named, might well have taken the place of the "aphorisms" and remarks in connection with the author's ideas of the *tactus eruditus.*

DOCTOR IN MEDICINE: AND OTHER PAPERS ON PROFESSIONAL SUBJECTS. By STEPHEN SMITH. 12mo, pp. 308. New York: Wm. Wood & Co. 1872.

THE preface to this interesting series of editorial essays simply states, that—"The papers contained in this volume were originally contributed to various periodicals." The volume contains fifty-eight essays, embracing a wide range of subjects of great interest, not only to the professional, but to lay readers. In the editorial treatment of the various subjects that came under the author's observation, he displays skill and refinement, as well as facility and strength of expression. The book is well printed.

OZOKERIT, AS A THERAPEUTIC AGENT. By HENRY SAMUEL PURDON, M.D. Reprinted from the *Dublin Quarterly Journal of Medical Science*, November, 1871. Pamphlet from the Author.

THE author recommends ozokerit, or vegetable wax, in the treatment of chronic affections of the skin, eczema of long standing—unaccompanied by much infiltration of the subcutaneous cellular tissue,—tinea, scabies, and psoriasis. He states that it is as valuable as carbolic acid, oil of cade, or tar. Its action is regarded as that of a stimulant to the skin. Ozokerit is not so easily obtained, and possesses no advantages in use over carbolic acid, or any of the tarry preparations.

LECTURES ON THE PRINCIPLES AND PRACTICE OF PHYSIC. Delivered at King's College, London. By SIR THOMAS WATSON, BART., M.D., F.R.S. Two vols. From the fifth revised and enlarged English edition. Edited by Henry Hartshorne, A.M., M.D. Philadelphia: H. C. Lea. 1872.

No words can convey the pleasurable satisfaction that we feel in looking over the revised edition of the admirable lectures of this distinguished author. The earnestness which marked his whole professional career, leads him, in a characteristic manner, to devote his last leisure hours to the correction of his great classic work. The lectures are so well known, and so

justly appreciated, that it is scarcely necessary to do more than call attention to the special advantages of the last over previous editions. In the revision, the author has displayed all the charms and advantages of great culture and a ripe experience combined with the soundest judgment, and sincerity of purpose. The author's rare combination of great scientific attainments combined with wonderful forensic eloquence has exerted extraordinary influence over the two last generations of physicians. His clinical descriptions of most diseases have never been equalled; and on this score at least his work will live long in the future. The additions cover more than one hundred pages of new matter. The lectures on the eye have very properly been omitted, as not now coming under the care of the physician. The subject of treatment, which has undergone so many important changes since the fourth edition was issued, has been most carefully revised and instructions given in accordance with the advanced ideas of the application of therapeutics. The subjects of blood-letting, embolism, modes of dying, asphyxia, chorea, croup, diphtheria, and obscure diseases of the nervous system have all received additional attention—and increased value. In acknowledging the assistance of his successor, Dr. George Johnson, he gracefully adds—"I will only say that I think him unsurpassed for accomplishments and ability in his vocation. King's College may well be proud of him." The American edition has been under the care of Dr. Henry Hartshorne, in its passage through the press. It forms two handsome volumes of nearly one thousand pages. It is illustrated with woodcuts wherever this kind of engraving could be of any advantage. The American edition is a very creditable production. The work will be sought by all who can appreciate a great book.

SYPHILIS: ITS NATURE AND TREATMENT. WITH A CHAPTER ON GONORRHŒA. By CHARLES ROBERT DRYSDALE, M.D. London: Baillière, Tindale & Cox. 1872.

THIS work is mainly devoted to the consideration of the treatment of syphilis based on the anti-mercurial views of the author. It contains nothing more than the reiteration of arguments that have been repeatedly advanced, without producing any very decided impression on those best fitted to judge the question at issue. The whole course of the author's reasoning is based on the false assumption that abuses still exist in the administration of mercury in the treatment of syphilis. Every one who has paid any attention to the past literature of venereal therapeutics is well aware of the errors committed in the indiscriminate use of mercury; they, at the same time, have now abundant evidence to satisfy themselves that, properly and judiciously administered, it is invaluable in certain stages of syphilis. Many of the facts cited by the author to sustain his radical notions, are based neither on clinical observations nor sound reasoning. The work contains many valuable observations made by M. Fournier, of

Paris, as well as extracts from many continental authors. Beyond the interest attached to it as the work of an extremist against the use of mercury in the treatment of syphilis, the book is valueless, and will scarcely command much attention.

THE TREATMENT OF CHRONIC SKIN DISEASES: BEING THREE LECTURES DELIVERED AT ST. VINCENT'S HOSPITAL. By E. D. MAPOTHER, M.D. London: Baillière, Tindale & Cox. 1872.

THE author of this work, which he very improperly leads the reader of the title to believe is devoted to the treatment of chronic skin diseases, divides this class of affections as follows:—1st. Parasitic eruptions. 2d. Moist eruptions. 3d. Dry eruptions, and those which are due to systemic causes. Following this intelligent (!) division, the author devotes about fifty pages to a description of Lisdoonvarna spas and sea-side places of Clare. But one impression can be entertained regarding this production,—it possesses no merit and can serve no beneficial purpose.

MEMORANDA ON POISONS. By the late THOMAS HAWKES TANNER, M.D., F.L.S. Third and completely revised edition. 32mo, pp. 155. Philadelphia: Lindsay & Blakiston. 1872.

THIS is an exceedingly useful little book. It was originally intended by the author to serve as a guide and remembrancer to the busy general practitioner. The intrinsic usefulness and merits of the little work soon became known, and it became the *vade mecum* of the student as well as the practising physician. In remodelling the work Dr. Silver has increased its utility by many suggestions and improvements. Care has been displayed in giving important and reliable tests and processes for separating poison from organic mixtures. The work is refreshingly free from all verbosity and superfluities, and may be relied upon under all circumstances.

DR. RIGBY'S OBSTETRIC MEMORANDA. Fourth edition, revised and enlarged. By ALFRED MEADOWS, M.D. 32mo, pp. 104. Philadelphia: Lindsay & Blakiston. 1872.

DR. MEADOWS has carefully revised this practical little work of the late Dr. Rigby, and added such new matter as, in his judgment, the advancements of the time necessitated. It contains many excellent suggestions and terse rules for the guidance of the young obstetrician. In glancing over these "pocket editions" it serves to recall much that is known, but lying in a half-slumbering condition. They are undoubtedly useful aids to the memory.

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Original Communications.

REMARKS ON BALSAM OF COPAIBA—TESTED COPAIBA.

By ARMAND FUMOUZE, M.D., Paris,

Pharmacien de 1re classe; Membre de la Société Entomologique et de la Société Chimique de Paris.

TRANSLATED BY DR. EUGÈNE PEUGNET.

Balsam of copaiba was formerly only made use of in the treatment of gonorrhœa, that is, in cases in which its use could not be dispensed with. But since the repulsive odor and taste of this remedy have been perfectly concealed by enclosing it in capsules, and particularly since the happy innovation of Raquin, in 1837,* who substituted gluten for the gelatine, hereto-

* Academy of Medicine of Paris, June 27, 1837. Report by M. Raquin on a new method of administering copaiba, unanimously approved of:—"The gluten capsules do not usually cause any unpleasant sensation in the stomach, do not produce any eructations, which is more or less the case after the administration of the other preparations of copaiba, even of the gelatine capsules. It is probable that they only *soften* in the stomach and dissolve in the intestines."

The gelatine and gluten capsules are almost instantaneously dissolved in artificial gastric juice at 100° F., the action of Raquin's capsules would not therefore be due to their passing undissolved into the intestine; but, as will hereafter be seen in the author's note, owing to the almost invariable relative proportion of the essential oil and resin contained in Raquin's capsules, in other words, tested copaiba; the essential oil, as an excipient and adjuvant, modifying the irritant action of the resin.—Translator.

fore made use of in the manufacture of the capsules, its use has been considerably extended.

Like turpentine, it is at present administered in various affections, and has even obtained some special applications.

Besides its special action on vesical and urethral catarrh, it is rationally designed to subdue inflammatory affections of the mucous membranes, in which the use of oleo-resins is indicated. It has been successfully employed by Halle, Armstrong, Ribes, Delpech, Laroche, Lisle, Bretonneau, and Hirtz, in the treatment of chronic bronchitis.

In 1866, Trideau* stated that he had successfully treated croup by its internal administration. The facts quoted by this observer appeared to be at first improbable, but were subsequently confirmed by the experiments of Bergeron, Héraud, Dumontpallier, and Archambault.

The cases quoted by the latter are probably the most convincing; three cases undoubtedly recovered, under the *exclusive* use of Raquin's copaiba.

Professor Hardy† was undoubtedly successful in treating psoriasis with the copaiba.

In the hands of eminent practitioners it has proved itself to be a powerful hæmostatic; Garrod, Duffin, etc., have made use of it as a diuretic in the treatment of ascites, and in several cases with good results.

Finally, copaiba has been prescribed in the treatment of leucorrhœas, intestinal affections, neuroses, and intermittent fever. It is also an anthelmintic and a powerful parasiticide.‡

Usually the effects of copaiba, like those of the other turpentines and balsams, are only obtained by contact; that is to say, its therapeutical action is only exerted on the organs by which it is eliminated and in proportion to the amount of the substance eliminated (Gubler). As copaiba is composed of an

* Trideau: Traitement du Croup et de l'Angine Couenneuse, Paris, 1866.

† Hardy: Leçons sur les maladies de la peau, Dartre, Scrofulides, Syphilides, 2me ed. p. 119. See also Dupuy: Traitement du psoriasis par le Baume de Copahu, Thèse de Paris, 1857.

‡ Fröhlich: Zur Behandlung der Kratzes: Allgem. Milit. Arztl. Zeitung, 26 und 27, 1870.

essential oil, holding in solution a certain proportion of resin, which is itself composed of copaivic acid, and of a minute portion of soft resin, it only remains to ascertain which are the channels of elimination of its constituent principles. According to the rule laid down by Gubler,* substances which are foreign to the economy are eliminated by the emunctories of the normal elements which they resemble. Thus, volatile substances, such as the essential oil of copaiba, are exhaled by the sudoriparous glands and the respiration; its neutral salts and salifiable substances, for instance, the resin, are principally eliminated with the urine. If this theory were absolutely correct, it would suffice to administer separately the resin of copaiba in affections of the urinary organs, and the essence in those of the respiratory organs and skin.

But Bernatzick† has demonstrated by his experiments that this process is not quite so simple. This observer has just shown that the essence of copaiba is not entirely eliminated by the respiratory organs and the sudoriparous glands; but that a noticeable quantity of this essence, from 4 to 5 per cent., becomes oxidized in the organism, and is eliminated with the urine in the form of resin. A small portion is also passed unaltered in the urine, and gives to it the odor "sui generis" which it is found to possess after the administration of copaiba.

According to him, the resin of copaiba passes through the urine in the proportion of from 10 to 13 per cent. of the amount of resin administered. The elimination of this substance by the kidneys considerably increases the urinary secretion, and does not communicate any odor to it.

Having ascertained these facts, Bernatzick desired to test the separate curative action of the balsam, also of its essence and its resin, on gonorrhœa.

Admitting that the therapeutical effect of balsam copaiba on the vesical and urethral mucous membranes is due to the contact of the urine charged with its medicinal principle, it might

* Gubler: Commentaires thérap., preface, p. xiii. Paris, 1868.

† Bernatzick: Pharmac. Studien über den Copaiva Bals. Prag. Vjhschr., C. (xxv. 4), p. 239. 1868.

be believed that the resin of copaiba would be the sovereign remedy against those diseases, since the active principles of the balsam are eliminated in a resinous form by the urine. But such is not the case. Bernatzick always obtained better results with the copaiba itself than with the resin, and for the following reasons. After a few days the resin is not easily tolerated by the intestines, and its absorption by the digestive organs is diminished; consequently, the proportion of the resinous principle eliminated by the urine is considerably reduced; it even becomes frequently necessary to suspend the treatment. With the balsam this disadvantage is much lessened, the remedy is more readily tolerated by the intestines, and the proportion of resin eliminated by the urine is about the same during the whole course of the treatment.

As to the essence of copaiba administered separately, it has an evident action on urethral catarrh, but insufficient to induce resolution.

Bernatzick's experiments demonstrate the important fact that *the active principle of a medicinal substance*, such as the resin of copaiba in relation to gonorrhœa, *may be practically inferior to the substance itself, as it is less readily absorbed by the organs of digestion.*

Indeed, it is not sufficient to isolate the active principle of a medicinal agent, but an *excipient* must be found for the principle thus isolated, and frequently the best excipient, as in the copaiba, is furnished by nature itself. Here the essence is not only an excipient, but it is also an adjuvant. Whilst it lessens the irritating effects of the resin on the intestine, it also contributes to the curative action, by the proportion of the resin formed at its expense.

Finally, notwithstanding the opinion of a few physicians, neither the essence nor the resin could replace the balsam, in the treatment of gonorrhœa. In reference to which, the pharmacologist Jeannel* says: "It is difficult to oblige one to accept the artificial improvement for that which is naturally good (copaiba)."

* Jeannel: Article Copahu, Nouveau Dict. de Méd. et de Chir. prat., publié par Jaccoud, Paris.

For other affections besides vesical and urethral catarrh, the isolated use of the essence, which has especial action on the respiratory organs and the skin, is unnecessary, as the balsam generally contains a sufficient proportion of the essential oil to be employed in its natural condition against these affections.

TESTED COPAIBA.—Copaiba has been frequently found fault with on account of the uncertainty of its effects. However, most frequently it is not the copaiba which is to blame, but it is the carelessness with which (like many other remedies) it is selected. For there is no substance more variable in its composition than copaiba. Thus there are some copaibas containing but 30 per cent. of the essence, whilst others contain as high as 80 per cent.; besides which all the intermediate degrees may be met with. It may be easily conceived that copaibas rich in the essence would be excellent for the treatment of diseases of the respiratory organs and skin, as these two are the principal emunctories of the essence; but such copaiba cannot be relied on in the treatment of gonorrhœa.

It is thus indispensable and important to make use only of *Tested Copaiba.* Unfortunately pharmacologists have paid but little attention to this question; the pharmacist, also, indifferently admits into his pharmacy all kinds of copaiba, without taking note of the proportion of the resin and essential oil contained in each, which should be in the proportion of about 55 per cent. of the former and of about 45 per cent. of the latter. This proportion appears to be the best, as it is sufficient for all the cases in which the balsam is made use of.* Would not our statement in reference to copaiba be equally applicable to nearly all the natural medicinal substances? Is not *testing* the most pressing reform necessary to introduce into our pharmaceutical code (?) that which should precede the most radical reforms,

* We must say that, among the preparations of copaiba lately submitted to our examination, we have found one which evidently contains *tested copaiba*—it is *the gluten capsules of Raquin of Paris.* The analysis of the copaiba contained in these capsules almost invariably yielded about 55 per cent. of resin and 45 per cent. of essential oil.

which consist in substituting the isolated chemical agents for the natural substances which contain them.

There are in fact two points to overcome before arriving at a complete realization of the positive tendencies of the science of medicine of the present day. As long as the chemical properties and the physiological effects of natural substances or of their components are but imperfectly known, it will be necessary to limit one's self in practice to the testing of those substances. Such should be the first step of rational therapeutics, which is that of the future. But this first stage will be of a much longer duration than many leading spirits imagine. Medicine, indeed, does not require revolutions engendered by exclusive systems, but only reforms resting on the solid basis of experimentation. Therefore it is only after having acquired a thorough knowledge of medicinal substances that it will be possible to substitute for each one of them the principle, or the immediate principles, which represent it in its useful effects. All our efforts should therefore tend towards this second point, already passed by a small number of medicinal agents. But above all let us not seek to forestall it by preconceived ideas.

ON SOME PRACTICAL POINTS IN THE PROPHYLAXIS AND THE TREATMENT OF THE PHIMOSIS PRODUCED BY CHANCROIDAL ULCERS.

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There is scarcely any condition of the penis more distressing to the patient and more annoying to the surgeon, than that which results from the complication of phimosis with chancroidal ulcers. When accessible, these ulcers are sometimes very rebellious to treatment; and when, in a phimotic condition of the penis, they become inaccessible, their treatment in many instances is attended with formidable obstacles, which tax every resource of the surgeon. Considering, then, the tedious and oftentimes dangerous character of this complication, I think that a practical paper upon its prophylaxis and treatment may be both of interest and benefit to the profession.

This condition is much more frequently observed in public than in private practice, as the patients who compose the former class are, as a rule, either ignorant as to the nature and consequences of the trouble, dilatory in seeking treatment, or careless in the use of remedies, in the point of cleanliness, and in the avoidance of exciting causes. Added to this negligence, we have in many cases tendencies to inflammation in consequence of abnormal conditions of the prepuce. While, then, it is a complication which occurs frequently in public practice,—for I find from my records that it is observed in fully fifteen per cent. of the cases of sub-preputial chancroids in the lower classes of society,—it is, according to my observations, not observed in a proportion of more than five per cent. in private practice, which, as a rule, is composed of persons who are careful in the examination of the organ, who seek advice early and follow out treatment regularly, and who are careful in properly cleansing the ulcers and in avoiding all sources of irritation.

The causes of this condition may be divided into two varieties: the predisposing and the exciting.

The predisposing causes are those which are due to abnormalities in the conformation of the parts, such as:

Redundant prepuce;

Straightness of prepuce;

Smallness of preputial orifice;

Shortness of frænum.

These conditions tend to produce balanitis and balano-posthitis, which, in their turn, induce inflammation around any ulcers which may be seated upon the inner layer of the prepuce or upon the glans penis. But besides the tendency to produce balanitis, the undue compression produced by these abnormalities of the prepuce favors the accumulation and retention of pus, which also greatly aggravates and complicates the case.

The exciting causes are many and varied. They are:

Delay and neglect of treatment;

Carelessness in using remedies, and in cleanliness;

Too much exercise, such as long walks; standing too long; hard work; horseback riding, etc.;

Irritation by coition or injudicious cauterization;

Compression by tightly fitting pantaloons;

Abuse of stimulants;

Blows and violence to penis.

Neglect of treatment of chancroidal ulcers, as an exciting cause, is very prolific in producing phimosis, for the reason that as the ulcers increase in size, the inflammatory reaction is more likely to occur, while negligence in properly cleansing them and in removing the virulent pus results inevitably in further inoculation of the parts. It is necessary that the patient should keep as quiet as possible, whether there is or is not a tendency to inflammation of the penis, and the surgeon should enforce abstinence from sexual intercourse, not only for the benefit of the patient himself, but also to protect others from contagion. Too much stress cannot be laid upon the injury done by injudicious cauterizations, with the solid stick of nitrate of silver. Care should be taken that no undue pressure is exerted by the clothing, and all stimulants should be avoided.

In order to correctly appreciate the indications for treatment, it is necessary to call to mind the clinical features of the trouble. Clinical observation warrants the division of chancroidal phimosis into two well-defined stages, each of which has its clearly marked features, and it is important that these should be carefully impressed upon the mind, as each stage requires an entirely different method of treatment.

It generally begins in the following manner:—Given a case, in which one or more chancroidal ulcers have existed for some time under the prepuce or upon the glans penis, owing to one or more of the above-mentioned exciting or predisposing causes; these ulcers become irritated, very soon a redness and swelling invade the penis, and then the prepuce can only be retracted with difficulty and pain. In most cases, at the outset, the inflammation will be found to involve the penis generally, while in some the redness, swelling, and tenderness only involve those lateral and dorsal portions of the organ which correspond to the course of the lymphatic vessels. The process is attended with considerable pain and discomfort to the patient, and in those cases in which the prepuce is of normal size the difficulty of its retraction is, at this early period, caused by pain rather than by the swollen condition of the parts. If proper treatment was instituted at this juncture, in the majority of cases the inflammatory symptoms would subside, and there would be no obstacle, then, to the proper dressing of the ulcers. But unfortunately very few patients seek advice in time, as they do not appreciate the gravity of the case, or perhaps an injudicious or temporizing treatment is pursued, and the result is that the inflammation increases. Under these circumstances, the hyperæmia and œdema become rapidly localized at the end of the penis, which becomes swollen out of proportion to the natural contour of the organ, which then comes to resemble a small Indian club. The free margin of the prepuce is thickened and inflamed, and its tegumentary portion, which, though tense and red, can still by pressure be rolled over its mucous layer, and although it is discovered that there is very considerable œdema, it is, as yet, not hard and firm, and does not present that brawny sensation which, if the inflammation progresses, will be ob-

served at a later stage. The lesion at this stage consists in hyperæmia with moderate serous effusion, and probably with no cell proliferation; consequently; though the normal suppleness of the prepuce is considerably interfered with, it can be readily seen that these two layers are not as yet rendered firmly adherent by inflammatory deposit.

The hyperæmia and œdema extend over the whole organ, but they are greatest in its preputial portion, and they gradually shade off behind the corona glandis. Retraction at this period, which I would consider the first stage of chancroidal phimosis, is rendered impossible not only by reason of the pain, but also by the swollen condition of the parts. Spontaneous pain, however, exists at this time, and varies in intensity in different persons. Though perfect retraction is now impossible, careful examination will reveal the fact that the prepuce and glans are not as yet firmly coapted, but that there is room for the introduction of slender instruments between them. Then again there are cases in which retraction can be partly accomplished, and others in which the preputial orifice is very narrow, or in which the prepuce itself is narrow in its whole length; yet in the majority of these cases, at this stage, a slender instrument can be introduced with a little skilled manipulation. It will be seen further on, that this fact materially influences the prognosis of the case. To complete the picture of this stage, it is necessary to add that a copious rust-colored pus exudes from the prepuce and a number of minute chancroidal ulcers may be observed around its free margin, and we may also see one or more on the lips of the meatus, and perhaps upon the tegumentary portion of the prepuce. In some cases inflamed lymphatics may be felt along the dorsum of the penis, and they materially add to the discomfort of the patient. The focus of this inflammation is of course either upon the glans penis, which becomes greatly tumefied, or the mucous layer of the prepuce, and here, if an operation was performed, we should observe one or more chancroids showing evidences of active ulceration; the mucous membrane around them would be intensely hyperæmic and much thickened; in some places its superficial epithelial scales would be cast off, while in others in-

cipient chancroids would be noticed, and upon the whole surface there would be a considerable quantity of pus. These are the chief features of the first stage of chancroidal phimosis.

If, owing to any cause, proper treatment is not adopted at this stage, we very soon have a much more aggravated condition. The œdema of the penis becomes much harder and firmer, and brawny to the touch, and the two layers of the prepuce seem immovably adherent to one another, while further examination shows that the glans and prepuce are quite closely coapted, so that scarcely any instrument can be inserted between them. In this stage the hyperæmia is accompanied with cell infiltration into the connective-tissue layer of the prepuce.

It will be observed in many cases, if this condition progresses, that the glans penis gradually recedes. Now this retraction is due to the fact of the pressure of the unyielding prepuce upon the glans, already greatly enlarged by hyperæmia, by which it is forced back into the sheath of the penis, and in practice it will be seen most frequently in those cases in which the prepuce is naturally tight or in which its orifice is contracted, though it does also occur in cases of normal prepuce. As long as the disposition of the parts permits this retraction, there is scarcely any tendency to gangrene, but when the glans becomes firmly fixed, there is a natural tendency for its liberation by localized gangrene of the prepuce. It will be seen further on, when speaking of treatment, that it is important to bear in mind this fact of the retraction of the glans.

The penis at this time presents the typical club-shaped appearance; the prepuce is of a dusky red color, while the rest of the sheath is hyperæmic. In very bad cases a gangrenous spot may show itself over the corona, either in the median line or on one side, or portions of the prepuce may have ulcerated away, or, again, portions of the glans may have been destroyed. I have seen cases in which the mucous layer of the prepuce has been entirely destroyed, while its cutaneous layer encircled the glans like a shell. There may or may not be cutaneous chancroids, and perhaps there is a virulent inguinal adenitis. From the preputial orifice a copious brownish sero-purulent discharge constantly flows, which emits a horrible odor, so that the pa-

tient is an object of disgust to himself and to those around him. There is a constant pain in the penis, which is of a gnawing and aching kind. This constitutes the second stage of chancroidal phimosis. I shall allude, when speaking of treatment, to a more advanced stage in which more or less of the penis has been destroyed.

A consideration of these clinical facts shows us that we have here two distinct conditions to treat: the one an œdema of the prepuce of moderate character; the other an œdema of great solidity complicated with cell-infiltration, each coincident with virulent intra-preputial ulcers. In the first case, it will be seen that any agent which acts beneficially upon the ulcers tends to lessen the surrounding œdema; whereas in the second case, though an agent may act upon the ulcers, it can only act very slightly if at all upon the infiltration of the prepuce. Cases will undoubtedly sometimes present, in which it is not easy to draw the line in an absolute manner between these two stages, and in the treatment of them we have to exercise judgment in adapting our measures. It is very important that this point should be clearly understood, for the reason that the treatment of the first stage is different and of a milder character than that of the second. I shall confine myself to the consideration of those agents and methods of treatment by the use of which relief is surely obtained, and I shall not occupy space in discussing the merits of external lotions, hip-baths, cathartics, low-diet, etc., upon which so much stress is laid in the popular text-books.

In the treatment of the first stage the indications are: to cure the virulent ulcers and coexisting balanitis; to cause the subsidence of the œdema and to remove all pent-up secretion; and the only efficient means of meeting them is by the use of the intra-preputial injections. It is somewhat singular that these injections have not attracted the attention nor have they commanded the confidence to which they really are entitled, for practitioners very often resort prematurely to cutting operations where a cure could certainly be obtained by them. The reason undoubtedly is that their importance is not prominently brought forward by the text-books, and the directions for their use are vague and unprecise. Besides this, there have been

very serious drawbacks in their application: the syringes have generally been unfitted for the purpose, the injected fluid has not been appropriate, and they have not been used properly by the patient. The books generally recommend a syringe with a long nozzle or a portion of a catheter attached to a syringe. The syringes generally in use are too large, with a nozzle which is not sufficiently long for extreme cases, and is too thick in its diameter for easy introduction between the prepuce and glans in any case; and besides this the opening at their end has been so large that it permitted the stream to rush out too forcibly, thereby very often causing pain and hemorrhage. As to the injection, many of the solutions recommended wholly fail to meet the indications, which are, that while they should act as a moderately powerful caustic, they should at the same time relieve all coexisting inflammation. These solutions are very numerous, and the principal of them are solutions of nitrate of silver, sulphate of zinc, acetate of lead, persulphate of iron, potassio-tartrate of iron, permanganate of potassa, and chlorinate of soda. I have carefully used all of these in many cases, and I must express it as my conviction that, as a rule, they do not produce favorable results; that if used sufficiently strong they irritate, and otherwise they are too weak, and that they are far inferior to one of which I shall speak further on.

But whatever injection is used, if the patient is not careful and sedulous in carrying out the treatment the result will be unfavorable, and many cases of unsuccess of these injections are due to this cause. It is absolutely necessary that they should be used frequently, carefully, and thoroughly, and that previous to their introduction under the prepuce plenty of plain water should be thrown up; yet in spite of this warning the patient often uses them once or twice a day, whereas he should have used them at the very least six times a day.

Now in order that these injections should be used efficiently, I have devised a very simple syringe, which is made for me by Tiemann & Co., New York. It consists of an india-rubber syringe, holding half a fluid ounce, to which is attached a nozzle which is three inches long and nearly flat, having a diameter of less than an eighth of an inch. Near the end of it

and situated on the edge are five minute holes, two on each side and one on the extreme end. This nozzle can be introduced very easily and without pain under almost any prepuce as far back as the fossa glandis. The solution which has proved most beneficial in my hands is one of carbolic acid, of a strength of two drachms of the acid, which contains just enough water to render it fluid, to the half-pint of water.

Given, then, a case of chancroidal phimosis in the first stage, this fluid should be injected at least six times every day, and, if possible, eight. I always direct patients to throw under the prepuce five or six syringefuls of water, or, in private practice, water to which a little borax has been added, about a drachm to the pint. In throwing it in, I direct that the syringe should be introduced fully back to the fossa glandis, and that each time the nozzle should be inserted in a different direction, and by this means all secretion is washed away; in fact, the water should be thrown in until it comes away clear. In using the syringe, it is necessary to press gently and slowly upon the piston, for by that means every portion of tissue is bathed, and at the same time pain and hemorrhage are not produced. When the prepuce has been thoroughly washed out, it is necessary to throw in the injection in a precisely similar manner, using three or four syringefuls of solution. As it is hardly possible in any case to confine the patient to a recumbent position, it is necessary that the penis be wrapped in lint, which may, if there is much redness, be wetted occasionally with cold water, and suspended by a proper bandage along the fold of the groin, as this position is preferable to the vertical one in which the penis rests against the abdomen. After these injections have been used a week, and in some cases sooner, a marked improvement will be noticed. The prepuce will appear less tense and red, and minute wrinkles can then be seen in the integument. The secretion will be much less copious, and it will present less of the rusty color than it did before, and the pain, if it existed, will be less or will have ceased. The patient will discover that the nozzle of the syringe is introduced more easily, and very often the prepuce can be retracted very slightly, and it can be seen that the coaptation is not nearly as close as it was.

While the patients are under treatment it will be found necessary to frequently encourage them in a kindly and assuring manner, for the reason that the phimosis is in their eyes a very desperate affair, and causes them trouble, annoyance, and solicitude, and, as it may last for some time, they are liable to become discouraged and reckless. When the case progresses favorably, it is necessary not to relax our efforts, but to continue on regularly with the injections. It is very often noticed that after this solution has been used for a week or ten days, it causes an uneasiness which it did not before. This is a feature of very favorable omen, as it shows us that the virulent ulcers have been converted into simple ulcers. Under these circumstances it is well to reduce the strength of the injection one-third, or perhaps one-half, and even to one-quarter. As the case progresses the evidences of a cure will be still more apparent. The œdema of the prepuce will gradually subside, retraction can more and more be accomplished, and the secretion will be much less, and will be composed of a laudable pus. When retraction is accomplished, if the ulcers have no chancroidal appearance, the solution may be reduced to a strength of eight grains of the acid to an ounce of water, continually applied on an interposed piece of lint. If the ulcers have a decidedly healthy appearance, the solution may be only four grains to the ounce, and should they show a tendency to develop profuse flabby granulations, they should be touched every day or two with a thirty-grain solution of nitrate of silver, and then the carbolic solution should be continued. The average time necessary to obtain a cure of the first stage of chancroidal phimosis is between two and three weeks. In that time retraction is generally possible, and the ulcers will have lost their virulent character, and will rapidly heal. Though that time may be stated as the average, it is well to remember that the rapidity of cure depends to a very great extent on the faithfulness of the patient, and while, if he does what he is told to do, he can induce a cure in less than three weeks, he can by negligence delay it for two months and even longer, so that I think we cannot insist too forcibly upon the fact that the injections should be used very thoroughly and very frequently.

The size and number of the chancroidal ulcers, also, have a great influence upon the duration of the phimosis. It is sometimes quite remarkable to observe how a small ulcer may give rise to this condition in a form seemingly as formidable as if produced by many ulcers. Of course, when a number of ulcers exist, particularly if they are of large size, the cure will be delayed longer than if the phimosis was produced by a single small ulcer.

Very often, in these cases, small chancroidal ulcers develop by auto-inoculation upon the margin of the prepuce, and upon its tegumentary layer. The surgeon might perhaps be induced to treat these actively by cauterization, but such a procedure will be found to be injudicious, as the pus which continually escapes will inevitably re-inoculate the sores. I have obtained better results in these cases by a temporizing treatment, in simply applying continuously on lint a solution of the acid one-half the strength of the injection, which generally either cured or converted the chancroids into simple sores by the time that retraction became possible.

If, then, we can obtain such good results,—and we really can by this mild treatment,—it follows that such heroic measures as slitting up the prepuce and circumcision are unnecessary and unwarrantable, and such is really the case. In an early stage the chancroids inevitably inoculate a cut surface, and their destructive action is then quite rapid; whereas in the second stage this action I have found to be less destructive, owing to the age of the ulcers, consequently such measures would be contraindicated in the first stage and would be indicated in the second. It is urged that circumcision is advisable, as it acts as a prophylactic for the future. Now, we certainly cannot deny that if a prepuce has been excised, the patient can never again have phimosis, and that in many cases as a prophylactic measure it is of infinite benefit; but I must confess, being taught by experience, that I have a repugnance to the performance of the operation upon a penis inflamed by chancroids, and unless strangulation is imminent, I strongly counsel delay until they are thoroughly healed. Indeed I think that I am not stating the case too strongly when I say that incisions of any kind are un-

warrantable in the first stage of chancroidal phimosis, because experience in fifty cases has shown me that patience on my part and faithfulness on the part of the patient has been rewarded by a cure without running the risk of protracted ulceration. In case incisions are made in this stage the cure is always delayed, and two months and even three often elapse before the parts are thoroughly healed; whereas, with the injection-treatment, relief is experienced very soon and a cure is obtained in less than a month,—scarcely ever longer. Many practitioners have resorted to incision for fear of gangrene, but it will be seen by what I have said, that if the injections are thoroughly used, such a contingency is almost impossible; at least I have never seen a case which, when treated in the first stage in the manner I have suggested, has ever become worse, or which has gone on to the second stage.

When the chancroids have thoroughly healed, I think circumcision is a beneficial operation, particularly in those cases in which there is any abnormality of the prepuce or where a chronic phimotic condition has been produced by the cicatrices of ulcers near the free border of the prepuce. Indeed, under these circumstances, when we look into the future of such a patient and consider the dangers he runs from venereal contagions and the inconvenience he may experience from balanitis, herpes, and from functional disturbances of the generative apparatus, it becomes our duty to state the case plainly to the patient, and to urge upon him the necessity of the operation.

When cases have progressed to the extent that the œdema is greater than in the first stage, when the two layers of the prepuce begin to be quite firmly adherent, but where compression of the parts is not as yet evident, it is well to try the injections of carbolic acid for about ten days, and, if there are signs of improvement, to fix upon them as the treatment; but if the case is not benefited it is well not to temporize, but treat the case as one of the fully developed second stage.

Now in the treatment of the second stage of chancroidal phimosis we certainly have a very formidable trouble to deal with. The prepuce is then rendered hard and firm by the œdema and cell-proliferation, and under it large virulent ulcers are hidden.

If treatment is not instituted, the ulceration of the parts will inevitably increase, the prepuce may become gangrenous over the portion where the glans exerts the greatest pressure, and in that case an artificial opening in it will relieve the strangulation of the circulation both of it and of the glans, or, in some cases where this gangrenous spot does not form, the strangulation is relieved either by the destruction of part of the glans or of more or less of the prepuce, sometimes merely its internal or mucous layer, sometimes its whole thickness. In any of these cases, the symmetry of the penis is to a greater or less extent permanently disfigured, and this is an accident of very great import, and greatly feared by patients. The indications for the treatment of this condition are: to relieve the strangulation; to place the parts in such a condition that local applications can be made to them; to destroy the virulent ulcers, and to cause the absorption of the œdema and cell-infiltration. It can be readily seen that in this urgent state of affairs injections are powerless, and that if the parts are not relieved by a surgical procedure they will surely be relieved by the natural tendencies of these morbid processes. Consequently, our duty here is to interfere by a cutting operation before a gangrenous opening is made in the prepuce. To this end we have such operations upon it as the dorsal incision, incision at the side of frænum, and circumcision. I have performed all of these operations, and I have found that they were not attended with such good results as if two lateral incisions are made.

The objections to the dorsal incision are mainly that it does not permit of complete exposure of the glans. (It must be remembered that I am speaking of the second stage of this phimosis, when strangulation is imminent, and when the œdema is hard, because in the first stage a dorsal incision will generally place all portions of the glans at our disposal.) If the dorsal incision is made into a hard, brawny prepuce, it will be found in many cases impossible, on account of the rigidity and tenderness of the parts, to get at the frænum and the fossæ on each side of it, and here the ulceration is generally very great, and if they are got at immediately after the operation, in twenty-four hours the parts will have so arranged themselves that that

will have become impossible; consequently one of the objects of the operation is not obtained, and we are forced to either cut on one side of the frænum or to cut farther up on the dorsum of the penis. The application of dressings after the dorsal incision is very difficult, and is accomplished with great pain and discomfort to the patient. After this operation patients very often, either from neglect or from indisposition to further operations, leave the parts in the condition in which they have healed, and then we find that the prepuce consists of two wings or dog's ears, which act as an impediment in the performance of the functions of the penis. Besides this disadvantage, as a result of the previous inflammation, a raw surface is often left at the angle where the prepuce springs from the glans at each side of the frænum, and as the prepuce and glans are, where this occurs, kept very closely coapted, this soreness is almost incurable, and besides being an annoyance it renders the patient very liable to venereal contagion. For these reasons, which in practice I have found to be very serious, I do not resort to the dorsal incision. There are still weightier objections against the operation of circumcision. In the swollen state of the penis it is impossible to cut the parts nicely, and if they are brought together by stitches the latter rapidly slough and the parts gap, and we have behind the glans at least an inch and a half of a virulent ulcerated surface which completely encircles the penis, at one end of which is the glans, at the other the cut end of the sheath of the penis. This is a very painful condition, and in applying the proper dressings patients suffer very severely. The surface being so large, we are forced to resort to mild applications rather than active cauterization, and the cure is greatly protracted. Those who have not seen this condition might, perchance, despair of obtaining a good result in the end; but the truth is, that the parts, as they heal, draw together and coapt very nicely, and I have seen as good results follow this operation as if it had been done upon a normal prepuce. As to the incision at the side of frænum, I need only say that it does not permit of free exposure of all portions of the glans and prepuce, and for that reason is unworthy of trial. Having experienced these trials and drawbacks in the treatment of this stage of chancroidal phimosis, it occurred to

me to make two lateral incisions, as by that means I hoped to have the parts more at my command. The result realized my wishes, and I now propose this procedure as one which will produce infinitely better results than either of the foregoing operations. In the performance of the operation I introduce a pair of strong, long-bladed scissors, with the blades at right angles with the glans, exactly in the middle of the lateral portion of the prepuce, and I cut as far back as the bottom of the fossa glandis, and then I make a precisely similar incision on the other side. The result is that the prepuce is converted into two flaps—an upper and a lower—and between them is situated the glans penis. When the incisions have been made sufficiently far back, and this is an absolute essential to the operation, it is surprising how readily the upper flap can be elevated and the lower one depressed, and that the whole extent of ulcerated surface is in view. There is no portion of the glans or of the fossa behind it, or of the prepuce, which cannot be readily got at; and in the event, which is not uncommon, of the ulceration having extended between the body of the penis and its sheath, having eaten through the mucous layer of the prepuce, that surface is also fully at our command. Besides these advantages, there are others which I shall mention further on. In the performance of this operation I found some difficulty with the ordinary long-bladed scissors, they being too broad in the blade and not sufficiently long; consequently it was sometimes necessary to make two cuts. To remedy this inconvenience I devised a pair of scissors on the plan of my friend Dr. Henry's cutting forceps for the removal of plaster-of-Paris dressings, which consist of two strong blades, each about three inches long. The lower blade is made transversely flat, and is at right angles with, and is one-tenth of an inch longer than the upper one, and is rounded off smoothly at the end, and resembles somewhat the ordinary elevator for necrosed bone. This blade can be introduced with the greatest facility between the prepuce and glans, as far back as the fossa, without any pain to the patient or inconvenience to the surgeon, and the necessary incision can then be readily made. This incision should, as I have said, always extend back as far as the bottom of the fos-

sa glandis, and is rarely ever less than two inches in length, and in some cases it should be three inches, in consequence of the elongation of the prepuce, of which I have already spoken.

Having thus relieved the strangulation and placed the parts in the condition of being treated, it now remains to fulfil the other indications of the treatment, which are to destroy the ulcers and to cause the absorption of the products of inflammation. When the phimosis has existed for such a length of time that strangulation has been imminent, the chancroidal ulcers sometimes seem to have lost their virulence, and though the cut surface becomes ulcerated the destruction of tissue is very slight. When this tendency is observed, the progress towards a cure is more rapid than otherwise. We, however, must be prepared for protracted chancroidal ulceration, and we should endeavor to prevent it. Having then the parts free to be acted upon, an inexperienced person might be led to resort to very active cauterization, either with nitric acid or perhaps with the actual cautery; but the result would not be at all satisfactory. What is needed here is a caustic, the action of which shall be long-continued and at the same time quite stimulating; and neither of the above caustics possesses these essential qualities, as their action is immediate, and is destructive only to those portions of tissue with which they come in contact. Under these circumstances I have found nothing to act so well as the pure carbolic acid, rendered fluid by a small quantity of water. After the incisions I proceed as follows: I cut four pieces of lint—two to fit the glans, the one above, the other below—and two long strips to place between the cut surfaces, and if the ulceration has extended between sheath and body of penis, I tuck in lint there. Without stopping to control hemorrhage, I soak each of these pieces of lint in the acid and put them in their places, then I bring the flaps together and they hold the dressings firmly. I then wind a bandage around the penis, allowing the meatus to be free—being careful to exert some slight pressure upon the distal portion—and I order the patient to keep the bandage continually wet with cold water, and if possible to lie down for the next twer ty-four hours, or at least to be quiet, and to keep the penis suspended along the fold of

the groin. In twenty-four hours all tendency to hemorrhage will have ceased, and, when the parts are exposed, considerable of the gangrenous and ulcerated tissue will come away on the pieces of lint. Then it is necessary to apply the acid again in the same manner, and to continue these applications every day for about ten days or two weeks, by the end of which time the ulcers will have assumed a more healthy appearance; then the solution of two drachms of the acid to eight ounces of water may be used, which may be further reduced in strength as the case progresses towards healing. The application of the acid will, as a rule, cause no pain, but, on the contrary, will ease the pain which almost always exists, and it will not inflame the parts. It will be necessary to keep the roller bandage around the penis during the whole time of the applications, as this is very conducive towards a cure by exerting a beneficial pressure upon the engorged vessels, and at the same time in affording the opportunity of applying cooling lotions, such as water or lead-water. With this operation the patient does not have an exposed raw and painful surface, as the pieces of lint are enclosed between the flaps and the glans, and they do not become dry, and are not painful in their removal. Besides this, as the cure progresses, it will be seen that the œdema and redness become much less; this is due to the combined action of stimulation and pressure. The stimulation of the acid causes the absorption of the effused cells in the prepuce, in the same manner that frictions with potash and tar act upon an indurated integument. I know of no other caustic which possesses this advantage. By this treatment chancroidal phimosis can be surely cured, and the patient, besides being saved months of suffering and anxiety, comes out in the end with slight damage to his penis. The average time required for a cure has been, in thirteen cases of mine, forty days; but it may be delayed longer if the patient is not attentive. It is well that the surgeon should apply the dressings while the strong acid is employed, and, by the time that a reduced solution is used, the patient will have become so familiar with the operation that he can do it himself. After the cure, if the prepuce is abnormally long the flaps will be an impediment to coition, but circum-

cision can then be performed by two simple cuts with scissors, one at the base of each flap, and then it is necessary to apply about three stitches, for the parts are held together on the sides by the cicatrices of the lateral incisions. In some cases, however, the prepuce being normally short, the flaps become so contracted that an operation is not necessary. In treating cases which have gone past the second stage, in which there has been much destruction of the prepuce or glans, the cardinal rule should be always to make such incisions as will allow of free applications to every part. I am aware that there is an inherent timidity on the part of many surgeons to the institution of any cutting operations upon the prepuce, but I think their fears are based on theoretical rather than practical reasons, for if we do not interfere by art, and relieve the parts, nature after a time does it for us; consequently where we can by a simple operation avert serious destruction of an important organ, and promptly put at ease all the fears of the patient, our duty is obvious; it is imperative to cut. The fears of the dangers resulting from inoculation of the wound, about which we read and hear so much, are not realized in practice, but, on the contrary, we find that after incisions and the use of proper dressings a cure is quite speedily obtained. While, however, I advocate incisions so strongly in the second stage, I must repeat that I think that they are unnecessary and unwarrantable in the first.

In the event of the initial lesion of syphilis producing phimosis with much inflammation, a condition which is not infrequently observed, it is well, if the diagnosis has been carefully made, to endeavor to dissipate the induration by the internal administration of mercury, and then the phimosis may cease; but should that fail, and it sometimes does, the case must be treated in the manner of chancroidal phimosis, for there is usually no fear of causing the induration to involve the cut parts.

Clinical Contributions.

CASE OF SYPHILITIC PARAPLEGIA—POST-MORTEM EXAMINATION REVEALING THE PRESENCE OF A GUMMY TUMOR IN THE SUBSTANCE OF THE CORD, NEAR THE THIRD LUMBAR VERTEBRA.

By LORENZO HALE, M.D.,

Albany, New York.

There are features in the following case thought to be of some interest, although the treatment was unsatisfactory, on account of the poverty and neglected condition of the patient.

The following is the history:—Thomas H. Garner, colored, aged 31, died with paraplegia, June 14, 1872, at No. 41 Canal street, Albany. He had primary syphilis five years ago; there is a large irregular white scar on the prepuce; the meatus urinarius is elongated in a direction toward the frænum, and indicates the site of the primary chancre. Sarcocele had existed for more than two years; both testicles are enlarged; the right one is much the largest. For about a year there has been total paralysis of the right leg, which came on gradually. Six months ago, in January or February, he had facial palsy of the left side, of short duration, probably due to lying day and night with the left side to the window. About three weeks before he died there was a bed-sore on the sacrum, and the man was destitute of the necessaries of life, and was so feeble that he could not turn in bed. Sensation and motion in the left leg were greatly impaired, but not wholly wanting. The right leg could be pinched without pain, but a severe jar caused pain at the knee and hip; heat and cold, when applied to it, if perceived at all, were often mistaken for each other. He often wandered in his talk. Iodide of potassium, 4 grs. every three hours, was ordered, and was taken for about two days, with very great improvement. The man could sit up on the edge of his bed, and talked cheerfully and rationally. Through neglect his medicine was discontinued, and he at once relapsed into a condition of exhaustion and semi-unconsciousness. Pupils somewhat contracted. For the last two weeks there was incontinence of fæces and dribbling of urine. The catheter was passed twice daily, and from two to three pints of ammoniacal urine drawn off each time. There was ascites, and bulging of the thorax from the pressure of the effused fluid. The paraplegia became complete on both sides. For about a week before death, the hands, the forehead, and body were cool to the touch, and the patient complained of feeling cold. His pulse was

from 75 to 80. A mixture containing iodide of potassium, belladonna, and conium was obtained four days before death, but no great benefit was apparent from its use at this late period, although the attendants thought that he slept more and seemed better. In the last two days, the dropsy greatly decreased. During the last twenty-four hours he seemed to be unconscious, or unable to speak; his eyes were open, and he moved his head and his arms freely, but apparently without intelligence. His pulse was 120; his respiration and temperature increased. The amount of urine drawn off, on the evening before death, was about a pint; at eight o'clock the next morning, about four ounces only could be obtained. He died at about noon.

POST-MORTEM EXAMINATION, forty-eight hours after death. Body emaciated. On account of a disturbance in regard to the post-mortem, the abdominal cavity alone was opened; it contained no fluid. Bladder contracted and empty. The kidneys presented the appearance of having passed the second stage, and of entering into the third stage or stage of atrophy,—the Waxy Kidney. The 2d, 3d, and 4th lumbar vertebræ were removed, and a corresponding section of the spinal cord; the cord is in a congested condition; and there is a gummy tumor from $\frac{1}{8}$ to $\frac{1}{4}$ an inch in diameter lying in the substance of the cord, opposite the place of the 3d lumbar vertebra.

CASE OF PSORIASIS OF THE NAILS—THE LEPRA UNGUIUM OF WILSON.

BY J. CUMMISKEY, M.D.,

Physician to St. Mary's Hospital, Philadelphia.

S. H., æt. 26 years, a native of Ireland, and married, came under my observation at the skin clinic of the St. Mary's Hospital Dispensary, November 3, 1871. He stated that about eighteen months previously he first noticed, under one of the finger-nails, a hard whitish mass, which, increasing gradually in size, pushed the nail up. He soon after observed similar masses collect under the other nails, until finally all the nails of both feet and hands became affected. After the nails were displaced, they became very friable and crumbled away completely. Having lost all his nails in this way, a new growth commenced, but before progressing far was arrested, and so continued until he came under my care. The appearance of the finger-nails at this time displayed exceedingly roughened, irregular, and corrugated surfaces.

Arsenic has been the main reliance in his treatment; but mineral acids, cod-liver oil, and other medicines have been administered. Very little improvement was observed to take place until about three months ago,

when some of the finger-nails slowly worked their way out. The rest soon followed, and at the present time they have very nearly all recovered, and present a healthy appearance. The toe-nails progress more slowly, but, I am inclined to think, will also, in time, resume a normal appearance. The patient is small in stature, and of a delicate look, though he claims to have been of a healthy habit, and assures me that he has never suffered from any scrofulous or syphilitic disease. The disease of the nails was not preceded nor accompanied by any eruption upon the body or limbs.

Reviews.

ON THE SO-CALLED PARASITE SAID TO HAVE BEEN DISCOVERED IN IMPETIGO CONTAGIOSA.

The object of a review or criticism of a scientific memoir is to lay bare, that is, to sift the facts in a manner as free from bias and antagonism as possible, in order to arrive at the truth, and to establish whether there is or is not any solid basis to sustain the views and assertions of the author. In the June and July issues of the *New York Medical Journal*, Dr. H. G. Piffard contributes two articles on "Impetigo Contagiosa; its Parasitic Nature;" and on "Impetigo Contagiosa; its Relations to Vaccinia."

It will thus be seen that the Doctor has divided his subject under two different heads, which we purpose discussing in the order in which they are written.

Dr. Tilbury Fox* was the first to describe the contagious and inoculable form of impetigo; Dr. Taylor† subsequently confirmed it. The former, believing that it might be of a parasitic nature, examined the fluid contained within the vesicle and pustule before its rupture; for this eminent and pains-taking observer was well aware that fungi are found in the crusts of most skin diseases, conveyed by the air, and it was one of the points which engaged his special attention whilst investigating the nature and characteristics of this disease.

Therefore the alleged discovery of Dr. Piffard is neither startling nor surprising. After describing its microscopic appearances, etc., the Doctor arrives at the following conclusions:—

"The bodies are unquestionably vegetable organisms.

"Their primitive form is probably filamentary.

"From the filament the others are developed.

"*Their presence explains the contagiousness of the affection in which they are found, and brings it into the class of the parasitic affections of the skin.*"

It will thus be seen that he considers his investigations con-

* Jour. Cutaneous Med., 1868.

† Am. Jour. Syph. and Derm., Oct., 1871.

clusive; but unfortunately his cases are limited in number, and his microscopic conclusions are based *only on the examination of the crust*, in which he undoubtedly found fungi; whilst in the *only case* in which he examined the contents of an *unruptured vesicle* on one of Dr. Henry F. Walker's patients, at the Nursery and Child's Hospital, he *utterly failed* to find any evidence whatsoever of the existence of a parasitic fungus, and really confirms Fox's views in the following sentence:—

"Fluid from one of the vesicles upon the last case was examined by myself at the hospital, and found to contain *nothing* beyond some extremely minute molecular bodies together with a few leucocytes, as has been *observed by Fox.*"

Every microscopic observer, as well as Dr. Fox, is aware that there are germs—fungi, constantly floating through the air, and that by contact with it these fungi will become implanted on a denuded or scabby surface and will develop themselves; so that the mere assertion of Dr. Piffard, based upon the examination of a few crusts, that these fungi are the essential cause of the disease is utterly groundless, particularly as he flatly and most positively contradicts it by the single examination of *only one* vesicle.

Consequently we are compelled to fall back on the honest and frank admission of that accomplished observer, Dr. Tilbury Fox, that impetigo contagiosa depends upon:—

"*A particular poison, easy to treat, but little known.*" *

We also have every reason *to know* that Dr. Fox has had no reason to change his views, even since the publication of Dr. Piffard's investigations.

In this connection it is worthy of notice, that in the first case cited by Dr. Piffard he endeavors to establish a relation between a recent eruption and one occurring ten months previously, one month after the vaccination of the child, which ran a course of five or six months, bearing bluish discolorations, and that a *woollen garment* worn during a portion of the duration of the first eruption, put on at an interval of three months, induced the second, that is, an attack of impetigo contagiosa.

This assertion is going into the *reductio ad absurdum*, for it is well known that impetigo contagiosa leaves only an evanescent erythematous discoloration behind it, and not a bluish one. It is on a par with Salisbury's † assertion, who placed on a window-sill of a room, distant five miles from a malarious district, some of the soil containing fungi, and by keeping the window

* Fox, Treatise on the Diseases of the Skin (Am. ed. 1871).
† Microscopic Examination of the Blood, 1868.

open during *twelve consecutive nights*, succeeded at the end of that time in inducing well-marked symptoms of tertian intermittent amongst its occupants.

Under his second head, *Impetigo Contagiosa, its Relations to Vaccinia*, the Doctor endeavors to prove "the possibility of vaccinia standing in a causative relation to impetigo contagiosa." In support of which, after an examination of twenty vaccine crusts, he states that in "*every instance fungoid bodies, similar to those observed in impetigo contagiosa, were found*, with the sole difference that in the vaccine crust the fungus was more abundant and more luxuriant than in the majority of crusts derived from the other affection."

This fact would undoubtedly be of great importance *if* the Doctor had experimented with these *identical crusts;* he also cites seven cases in support of his assertion, in the only one, however, of which he is specific in his details, as having been vaccinated with *a crust, he fails to note the microscopic examination of that crust:* in the six others he leaves it to our imagination to fill the hiatus, as to whether lymph or crust were made use of. An important item, for, as he candidly admits:

"My subsequent experience, etc., induced me to make a careful microscopical examination of vaccine matter, etc. Fresh lymph, in tubes from Dr. Foster, was carefully examined with amplifying powers of from 500 to 1,500 diameters. Nothing of an organized nature appeared upon examination, with the exception of minute bodies by Beale termed 'Bioplasts,' and by Chauseau 'Vaccinads.' These bodies are supposed by both, and in fact pretty certainly determined by the latter gentleman, to be the active agents of vaccinia, and consequently a necessary and normal constituent of pure lymph."

It will thus be seen by these very flimsy facts, as well as by the formal admissions of Dr. Piffard, that the *direct* relations of impetigo contagiosa to vaccinia are far from being established; and it is even doubtful if there are any grounds upon which to build so pleasing a theory. For again, quoting the Doctor, he says: "The bodies we have described do not resemble those observed by Salisbury,* and termed by him *Jos Vaciola*, nor any of the fungi obtained by Hallier† in his experimental cultivation of vaccine lymph; nor the fungus described by Kohn,‡ and met with by him in the examination of impetigo contagiosa."

* Salisbury, Am. Jour. Med. Sciences, 1866.
† Hallier, "Parasitologische Untersuchungen," 1868.
‡ Kohn, in Wiener Med. Presse, June, 1871.

It is therefore self-evident that the fungus it has pleased Dr. Piffard to name Leptothrix Vaccinalis, is but one of the numerous varieties of fungi floating through the air. For we have every reason to believe that Moritz Kohn, whose facilities and powers of research are well known, has been unable to confirm the views he advanced about fifteen months since.

The Doctor's fungus is somewhat similar to Lostorfer's corpuscle, Salisbury's crypt, etc., etc., although these were based on better observations; but were nevertheless thoroughly exploded by Professor Stricker's and Köbner's investigations, as shown in an admirably prepared review on that subject which appeared in the July issue of this Journal.*

The fact is that the whole character and course of impetigo contagiosa is as unlike a vegetable parasitic disease as it is unlike scarlatina.

EUGENE PEUGNET, M.D.

THE RECENT LITERATURE OF VACCINAL SYPHILIS.

(SECOND NOTICE.)

Dr. KÖBNER'S *brochure*,† reprinted from the *Archiv für Dermatologie und Syphilis*, is a most valuable contribution towards the settlement of the manner in which syphilis is conveyed from one person to another in vaccination.

The author first devotes a few remarks to some of the more common non-syphilitic complications, which show themselves during or soon after the course of the vaccine vesicle. These he divides into two classes—(1) *inflammatory*, comprising erythema, vaccinal roseola, erysipelas, pseudo-erysipelas, cellulitis, the various forms of dermatitis, and inflammation and suppuration of the lymphatic glands; and (2) *specific*, being, for the most part, the irregular forms of the vaccinial efflorescence, including "vacciniolæ," which latter the author, following Rayer, looks upon as the result of auto-inoculation, rather than as being truly eruptive.

Dr. Köbner contributes two cases to the casuistics of vaccinal syphilis, and analyzes more or less thoroughly some of the principal cases on record—particularly those of Marcolini, Cerioli, Ewertzen, Tassani, Viani, Wegeler, Hübner, Pacchiotti, Trous-

* Am. Jour. Syph. and Derm., July, 1872.

† *Die Uebertragung der Syphilis durch die Vaccination.* Von Dr. Heinrich Köbner. Prag: 1871.

seau, Haydon, Adelasio, Sebastian, Auzias Turenne, Depaul and Millard, Koecwar, and his own.

The author dissents from Viennois' theory (which has met with general acceptance), that the conveyance of syphilis in vaccination is generally due to the admixture of the vaccinifer's blood with the lymph employed. His strongest argument against this theory is founded on an examination of the cases published by Waller, Lindwurm, Lalagade, Pellizari, and the anonymous surgeon of the Palatinate, in which healthy persons were inoculated with the blood of individuals suffering from that stage of syphilis which is principally manifested by glandular swellings, roseola, and condylomata. This examination shows, that, of all these inoculations (twenty-three in number), only six resulted in the conveyance of syphilis, and that in these six cases unusual pains were taken to insure the copious application of the blood—in one case even its subcutaneous injection. In not a single instance did success follow mere puncture (the mode of vaccination usually adopted on the Continent). Syphilis, therefore, is inoculable by means of the blood *with difficulty;* hence, argues Dr. Köbner, it is very unlikely to happen in that way in vaccination. The experiments of Boeck and Danielssen are quoted to the same purpose. Köbner's views upon this point have been opposed by Auspitz and others, but he ably maintains them, and they seem to us to be well founded.

How, then, does contamination take place? The author does not assert that the vaccine lymph, *as such*, is capable of including the syphilitic contagion, but prefers to consider that the conveyance of syphilis takes place by reason of an admixture, not of blood, but of the specific secretion from a syphilitic lesion existing *beneath* the vaccine vesicle, which admixture is more likely to occur late in the progress of the pock (after the eighth day), for the reason that the assumed syphilitic lesion does not usually antedate the vaccination, its development being, on the contrary, brought about by the local effect of the vaccine virus. There is no means of determining, in practice, the presence of any such deep-seated lesion, and there is no safeguard against tainting the lymph with its secretion—not even the avoidance of blood.

If we accept Köbner's views, there is, as he himself remarks, no way of absolutely avoiding vaccinal syphilis, except by the exclusive use of animal lymph.

Köbner considers it still doubtful whether or not common (traumatic) pus is capable of conveying syphilis, hence he hesitates to ascribe the greater liability of contamination by lymph taken after the eighth day to the mere fact of suppuration.

FRANK P. FOSTER, M.D.

Selections from Foreign Journals.

IDIOPATHIC MULTIPLE PIGMENT-SARCOMA OF THE SKIN.

By DR. KAPOSI,

Lecturer in the University of Vienna.

TRANSLATED FROM THE ARCHIV FÜR DERMATOLOGIE UND SYPHILIS. SECOND PART, 1872, BY DR. EDWARD FRANKEL.

In an article on sarcomata of the skin,* Köbner calls attention to the fact that this occurrence of the neoplasm in the skin is very infrequent, and that it has hitherto been an object of anatomical rather than of clinical interest. He relates two cases, the first of which was marked by the presence of skin-sarcomata in large numbers as metastatic growths, probably proceeding from the lymphatic glands of the groin; while in the second case, the general sarcomatosis had emanated from a nævus on the left forefinger, which, having existed since childhood, had been transformed into a pigmented cell-sarcoma. Both cases terminated fatally within three years. Post-mortem examination had been permitted in only one of the cases.

In my opinion, we can establish a typical-clinical form of pigment-sarcoma of the skin, distinct from that variety which, under all circumstances, manifests itself in consecutive (metastatic) eruptions from a variety of primary sources, the examples of which have been given in Köbner's cases.

As a basis for the establishment of this variety, I have five corresponding cases. I propose to describe them here, not only on account of the novelty of the subject and the great importance of a knowledge of the nature and course of the disease, but principally because these cases at the same time present the entire symptomatology of the malady, from its first manifestation to its final fatal termination, in a more forcible way than if they were presented in the shape of an abstract history.

CASE I.—Leonhard Kopf, aged 68 years, married, by occupation a blacksmith, was admitted to the clinic for skin diseases, July 25, 1868. Patient states that he has been troubled with a feeling of tension in the

* Archiv f. Dermat. und Syph., 3. Heft. 1869. p. 369.

hands since last summer. He nevertheless continued his occupation as smith up to January, 1868. Soon after, swelling and tenderness of the feet setting in, he was unable to stand, and the same condition in the hands compelled him to cease work, and for the past few months he has been confined to his bed most of the time. Present condition:—Both feet are swollen to an equal extent, the dorsal surface being arched and the sole filled like a cushion; the skin is tense, of a glistening reddish-brown color, very hard, not pitting much; pain is often spontaneous, and great tenderness is caused by pressure. The dorsum of the right foot is occupied by a blackish-gray portion about the size of the palm of the hand, which is tough, having the appearance of a cicatrix, and slightly depressed in the centre, and is surrounded by a circular margin of about 2‴, composed of tubercles, which are hard and of a brownish to livid color; this border is pitted in several places by cicatricial depressions, having a diagonal direction and dark color. From the inner side of the foot forwards to the dorsal surface of the toes, the skin is transformed into a hard, tubercular, irregularly thickened mass of a brownish-blue color, somewhat tender on pressure. The epidermis is everywhere preserved, desquamating in fine scales, chiefly from the more prominent portions. From the ankle to the knee there are several isolated and irregularly-placed knots, very firm, varying in size from a pea to a bean, glistening, of a brownish and bluish-red color, and desquamating; they are embedded in the skin and project beyond it; some of them can be elevated with the skin, while others have a deeper attachment, and can only be raised and moved with the fascia. In some parts of the leg, several of the above-described knots combine to form a prominent tubercle, of about the size of a silver dollar, and having an irregular contour. In the left foot and leg the disease has manifested itself in the same manner and intensity. Both hands are misshapen and thickened, and the fingers are spread. The skin on the dorsal surface of the hands, and of all the fingers, and inwards over the ball of the thumb, towards the middle of the palm, is also covered with similar knots. That portion of the skin not occupied by them is swollen and thickened. The hand is therefore very much enlarged and cushion-like on the dorsal aspect; the fingers are of a bluish-red color and knotty, semi-extended, diverging, and covered at different points by isolated knots, varying in size from a pea to a bean, and of a bright-red color; the skin of the palm is stretched, puffed, smooth and glistening; desquamating at different points, and covered with smaller and isolated knots about the size of a bean. The fingers cannot be flexed, nor the hands closed.

From the wrist to the middle of the forearm there are several partly isolated and projecting knots, combining to form bunches of the size of a dollar. The outer margin of these bunches is formed by the largest tubercles, some of which are tough, others again compressible like encephaloid tumors, regaining their size when the pressure is removed, and of a blackish-brown glistening appearance. The centre of each bunch is depressed, presenting an atrophied, cicatricial appearance, colored with black pigment, and flat, tough knots. On the chin, cheek, and upper lip there are altogether 8 knots, varying in size from a bean to a penny, slightly elevated or round, well circumscribed, and hard. The inguinal and axillary glands are slightly swollen, not painful. The patient, with the exception of the severe pains, caused by the pressure and tension in the hands and feet, and which disturbed his sleep, was quite well; no fever, appetite good. During his stay in the hospital (two months), till September 22d, the knots manifested but little change, and only a few developed on the arms and thighs. These new growths arose from a hard, red spot, about

as large as a pea. At his own request the patient was discharged on September 22d. In the mean time I had excised two knots in different stages of development, and by microscopic examination had recognized a small cell-sarcoma, with deposits of large numbers of small cells. At different points, the appearances of slight hemorrhages into the corium could be observed; in addition, much free pigment was found, of a yellowish-brown and black color, and external to the cells. The infiltration cells were deposited, almost entirely, in separate compartments of the corium, the structure of which, like that of the papillæ, appeared otherwise normal. In other places the papillæ were less distinctly defined, and were interspersed partly by small round cells, partly by agglomerated red blood-corpuscles (hemorrhages), and pigment. The character of the disease was now established. The progress of the disease was further demonstrated by the opportunity of observing the following case :—

CASE II.—On the 6th of April, 1869, B. Ch., 66 years old, married, a distiller, was admitted to the clinic with the following condition, the disease having commenced 14 months previous:—The skin on the soles and inner margins of the feet was covered with tubercular infiltrations of a violet-reddish color, tough and elastic, with well-defined margins, occupying portions as large as the palm of the hand, and projecting beyond the plane of the skin. The margin of these patches is made up of the larger knots; their centre is depressed and cicatricial. Diffused here and there, especially on the legs, there are formations similar to the above tubercles, very painful on pressure, some smooth on the surface and glistening, others wrinkled and desquamating. Most of them are tough and elastic, a few turgescent and compressible. The right hand is misshapen and enlarged, the fingers are much thickened and separated, the metacarpal portion is large and swollen. On the skin of the fingers there are isolated and confluent knots. On the entire dorsal surface of the hand, there is an ulceration extending from the wrist-joint to the first phalanx. It is covered by necrotic, purulent, and very offensive discharges, with steep and indurated margins, the inner surfaces of which are softened. At some points the ulceration extends down to the periosteum. The right forearm is also covered by knots of the size of a pea, bean, and hazel-nut, similar to the above described, in some places isolated, in others confluent. The left upper extremity, and especially the left hand, are similarly affected, the latter showing a large development of tubercles and infiltration, without ulceration, however. On the right upper and lower eyelids each, there is one tubercle about the size of a bean, split on its surface, of a dark color, hard, and projecting beyond the edge of the lids. On the left lids there are similar tubercles, some of which have degenerated. The right ala of the nose is occupied by several tubercles about the size of hazel-nuts; the free margin of the left ala is red, thickened, hard, and partly defective, being destroyed by a flat ulcer. The subcutaneous glands of the body are nowhere markedly enlarged. After remaining five weeks in the hospital, during which time a few tubercles underwent some change, others again developed, and by proper treatment of the ulcerations, the subjective condition of the patient had somewhat improved. He was attacked by a profuse hemorrhage from the bowels on the 12th of May, followed by continued fever, and he died on May 21st.

THE POST-MORTEM appearances, exclusive of the change in the skin already described, were as follows:—The skull-cap was thin and compact, the dura mater moderately tense, the inner membranes moist, the brain anæmic and moderately firm, somewhat tough; the convolutions somewhat thinned, the ventricles, the lining membrane of which was slightly thick-

ened, containing about ½ oz. of clear serum. The lumen of the basilar artery was reduced to about half its breadth by a nodule on its inner coat. The thyroid gland was small and anæmic. The mucous membrane of the larynx, trachea, and pharynx was pale. On the posterior wall of the latter, also on the under surface of the right half of the epiglottis, and on that portion corresponding to the third, fourth, and sixth cartilages, the mucous membrane and submucous layer was occupied by a vascular tubercle, moderately tough, corresponding to the variety described as existing on the skin. Directly under the right vocal chord there is a tubercle about as large as a pea, and two smaller ones corresponding to the anterior half of the cricoid cartilage. Both lungs œdematous, very anæmic; in the lower lobe of the left lung there is a red hepatized spot about the size of a walnut. In the bronchi, especially on the left side, there is much mucus. In several of the smaller pulmonary arterial branches there are hard, tough, bluish-red coagula. The pericardium contains a few drachms of clear serum. The heart is slightly contracted, the muscular structure pale-red and tough, the ventricles containing a small amount of watery blood. The internal membrane of the aorta is covered with grayish-yellow tubercles about the size of a silver dollar. The liver is large, somewhat hard, very fatty, yellowish-brown, anæmic and tough. On the right and left border of the liver was a tubercle, not encysted, as large as a walnut, containing liquid blood, on section of a dark brown color. The spleen is pale-red and tough; stomach and intestines contracted. The mucous membrane of the stomach thickened, pale, and thickly covered with mucus. At the pyloric extremity is found a mushroom-like tubercle about the size of a silver dollar, about 1‴ high, supplanting the mucous mambrane and submucous tissue, of a marbled white and red color, quite tough and containing a clear fluid. In other portions of the stomach, towards the cardiac extremity, there are similar isolated tubercles nearly as large as a silver dollar, two of which have stellated depressions on their surface.

The mucous membrane of the intestines is moderately injected, covered, especially in the colon, by numerous round knots, varying from a pea to a dollar in size, projecting about 1½‴ into the cavity of the intestine; they arise from the submucous tissue, and are here and there covered by a thin layer of mucous membrane, and have a grayish-red color, which towards the anus, however, becomes black. In one of the loops of the small intestine a blackish-red knot about the size of a pea has developed towards the peritonæum, and caused it to bulge. In immediate proximity to this tubercule there are two thin bean-like cysts on the peritonæum, filled with a rose-red fluid.

The mesenteric glands are small and hyperæmic; the tracheal and bronchial glands are of a deep slate color. Both kidneys are granular, tough, anæmic, of a pale brownish-red color, showing depressions on their surface. The pelvis of the left kidney contains a chamois-colored stone as large as a hazel-nut; similar concretions, but smaller, are found in the urinary bladder.

The microscopic examination of the tubercles on the skin revealed the same appearances as those found in the first case.

Case III.—On the 3d of October, 1869, A. Ebner, 45 years old, living in Czernowitz, a large-built, healthy-looking man, presented himself. He states that his feet have troubled him for eight months. On the sole of the left foot there were found isolated deep-seated tubercles, about as large as a pea, appearing through the epidermis, of a bluish-red color. In the vicinity of the inner surface of the foot there is a confluent patch, depressed in the centre. Isolated knots are found on the back of the foot and over

the ankle-joint. The entire left foot is already swollen, and the skin of the sole is very tense and tough.

On the right foot, tubercles were only found on the back of the second and third toe, and these were of small size. The hands and the rest of the body were not affected. The patient consulted me on account of tenderness in his feet. He voluntarily underwent a course of treatment with sulphur baths, and after a few weeks returned to his home.

CASE IV.—During the summer of 1870, a gentleman about 50 years old entered the clinic of Prof. Hebra, for whom I was then serving. The hollow of the sole of the left foot presented four or five tubercles, deeply embedded in the tissue of the skin, placed beside each other in an irregular group, slightly projecting, tough, very tender on pressure and during walking, and covered with a thick layer of epidermis. The color, round form, tenderness, seat, and the similarity of the tubercles, enabled me, after past experience, to diagnosticate the malady immediately, as the first stage of the process which I had observed in a more advanced stage in Case III., and in universal distribution in Cases I. and II. Notwithstanding the deep-seated tubercles were, after maceration of the epidermis, destroyed with caustic by Prof. Hebra, a few have recently developed on the sole and border of the foot.

CASE V.—During the summer of 1871, a man, perhaps 40 years of age, presented himself at my clinic, who had a large number of tubercles on the sole of the left foot, some of which were isolated, others arranged in patches. The character of the disease was easily diagnosticated. The man has not since been seen. (I may also add the case of a boy in Zurich, 8 or 10 years old, of which Prof. Billroth stated, after having seen Case II., and preparation of Case I., that a few tubercles of the above described, about as large as a pea, had developed in the course of a few weeks. Prof. Billroth has shown me a sketch of the case. The boy is said to have died in the course of a year, consequent upon massive accumulation of these tubercles.)

The characters of the disease, as they appear from the above descriptions, can be summed up as follows:—

It is characterized by the development in the skin, without a known local or general cause, of brownish and bluish-red tubercles, varying in size from a pea to a hazel-nut. Their surface is smooth, their consistence tough and elastic, sometimes swollen like an encephaloid tumor. They are isolated, and, when large, project like balls; or, they are grouped and remain more flat. In the latter case, the knots in the centre of the patch atrophy, and thus cause a dark pigmented cicatricial depression. They always develop first on the sole and back of the foot, soon after also on the hands, and here accumulate to the greatest extent, combined with diffuse thickening of the skin and deformity of the hands and feet.

In the further course of the disease, isolated and grouped tubercles also make their appearance on the arms and legs, in the face and on the trunk, but in these situations they develop in smaller numbers and are more irregularly placed.

The tubercles can undergo partial atrophy. It appears that ulceration, or rather gangrene, takes place in an advanced stage of the disease.

The lymphatic glands are not markedly swollen. Finally, these tubercles develop on the mucous membrane of the larynx, trachea, stomach and intestines; in especially large numbers in the colon down to the anus and in the liver. The disease terminates fatally in the short space of two or three years.

The cases which have been observed have only affected men over 40 years of age (with the exception of Billroth's case).

In differentiating this disease from carcinoma pigmentodes, it is important to bear in mind that the above-described typical pigment sarcoma always began in the feet, did not cause secondary deposits in the course of the lymphatics, that the glands underwent no alteration; furthermore, the theory of metastatic development is not supported by the fact of the manifestation of the disease at the same time and with equal intensity in both feet, and soon after in both hands, which parts were affected in a greater degree than any other part of the body. While it is possible that carcinoma can exist locally for a time, and is afterwards followed by a general carcinomatosis permetastasis, we must accept a general morbid condition (dyscrasia) for this disease.

A microscopic examination of the tubercles from the first and second case has revealed the same histological conditions: infiltration of small round cells in the corium, small hemorrhagic deposits within the tubercles, and much pigment matter.

That this intense pigmentation was owing to the great vascular supply and the hemorrhages was more easily demonstrated in these cases than in those of carcinoma pigmentodes.

The history of the foregoing cases seems to prove that the disease is not only incurable but also fatal.

The disease having made its appearance in both hands and feet at the same time, thereby indicating the influence of a general cachectic condition, we cannot hope to arrest its deleterious course by extirpation, even were such an operation practicable.

The most constant and almost only disagreeable symptom which demands treatment, is the feeling of tension and tenderness in the hands and feet. In this direction the patient may be relieved by means of emollient salves, emplastr. hydrargyri, cold fomentations, poultices, etc., together with general sedatives (sub. cut. injection Magend.).

ON NEURO-SYPHILITIC AFFECTIONS.

UNDER THE CARE OF DR. ALTHAUS, AT THE INFIRMARY FOR EPILEPSY AND PARALYSIS.

THE proportion of syphilitic to idiopathic affections of the nervous system, which have for the last five years been treated at this Infirmary, has shown a singular constancy, as it has in each twelvemonth been very nearly 5 per cent. of the total number of cases which have come under observation. On further analyzing the nature of these affections, another curious fact was elicited—viz., that the number of cases of syphilitic paralysis and palsy from non-specific disease bore a constant relation, as, out of 100 cases of paralytic affections of all kinds, in twenty a syphilitic origin could be clearly traced. Without attaching undue importance to these numbers, comprising as they do but a limited area of observation, Dr. Althaus thinks it well to put them on record, as showing a much more frequent occurrence of neuro-syphilis than is believed in by many practitioners. On the other hand, syphilitic epilepsy appeared to be rare, unless all cases of neuro-syphilis in which convulsive attacks occurred were put down as epilepsy, which would obviously be wrong. Amongst paralytic affections, palsies of some of the cerebral nerves ranked first in frequency; then followed hemiplegia and paraplegia. Local palsies of spinal plexuses or nerves were of rare occurrence; but a more or less considerable impairment of the memory and intellect was present in no less than 60 per cent. of the cases treated at the institution.

The diagnosis of neuro-syphilis is not always easy, and requires an intimate knowledge of the peculiar clinical features and phases of the distemper. In many cases, of course, the connection between cause and effect is so evident, that the patient himself makes a correct diagnosis before the physician has time to do so. There has been a hard chancre, an indolent bubo, early affections of the skin and throat, and perhaps a painful node on the shin-bone; then the patient, who lives in constant dread of something more and worse to follow, finds some morning on awakening that one of his eyelids droops, or that he has sensations of pins and needles in the feet, and has lost the power of walking to a more or less considerable extent. This he at once attributes to the same dread cause which has given rise to all his previous sufferings, and the diagnosis is therefore "cut and dried" for the Doctor. But this is by no means the rule. Although it is absurd, yet there are patients to be found who

strongly deny having caught infection from an impure source, and ascribe all their ailments to over-work, anxiety, mental shock, etc.—circumstances which probably act occasionally as exciting causes, but are not at the real bottom of the malady. We must therefore, when the symptoms are suspicious, never be satisfied with the denial of a primary syphilitic affection by the patient, but take such denial for what it is worth. Sometimes, in the further course of the treatment, a tardy confession is obtained. Again, in other cases, the primary affection has been so slight that it escaped notice at the time, or has been really forgotten; or an unsuspecting husband is infected by a faithless wife, or an illicit lover by his indiscriminating mistress, the vehicle of contagion being sometimes poisoned leucorrhœal mucus, primary affections being and having been absent. In all such cases we have to trust entirely to the clinical features of the case as a guide to our diagnosis.

What, then, are the peculiar features of neuropathy from venereal disease in contradistinction to idiopathic nerve disease? They are

1st. *The great variety of symptoms* which are observed in neuro-syphilis, while in non-specific nerve-disease the range of symptoms is more limited. In this particular neuro-syphilis resembles hysteria, for we find all kinds of paralysis, spasm, hyperæsthesia, and anæsthesia occurring together, or succeeding each other rapidly. If this is observed in men or in unimpressionable women, it affords considerable suspicion of syphilis.

2d. *The irregular or intermittent course* of neuro-syphilitic affections distinguishes them from their idiopathic namesakes. Thus, for instance, a non-syphilitic patient affected with aphasia only improves slowly or not at all under the best treatment; a syphilitic patient may have aphasia for half an hour, a day, or three days, and then completely recover his language. Cases of this kind of intermittent aphasia have been described by Dr. Hughlings-Jackson as epileptic aphasia; but Dr. Althaus has never seen them excepting in syphilitic subjects, and does not think them in any way connected with the true epileptic condition. Intermittent amblyopia and amaurosis also occur in neuro-syphilis, but we cannot claim these as epileptic affections any more than attacks of neuralgia or ague.

3d. *Mental symptoms*, which in a large number of idiopathic nerve-diseases are absent, are very frequent in neuro-syphilis. The memory is more apt to suffer than the intellect, but the latter is often impaired.

4th. *The general appearance* of neuro-syphilitic patients is mostly sallow and miserable, while patients with idiopathic

neuropathy often look the very picture of health. In fact, a frequent complaint of the latter is, that their friends and relations do not believe in their complaints because they look so well. The peculiar fusty smell of syphilitic patients, which was mentioned as characteristic by Dr. Gull, at a recent meeting of the Clinical Society, has several times been most strikingly present in Dr. Althaus' patients.

5th. *The results of treatment* are in the majority of cases quicker and apparently more satisfactory in neuro-syphilis than in non-specific nerve-disease; but relapses are more frequent in the former than in the latter.

We now proceed to give a few cases of neuro-syphilis which have been recently under observation at the Infirmary.

Case I. Intermittent Aphasia and Paralysis—Later on, Syphilitic Hemiplegia of the Right Side.—A carpenter, aged 42, admitted October 31, 1870; has had gonorrhœa several times, and had a hard chancre five years ago. There have been slight secondary symptoms off and on, affecting chiefly the fauces and the skin. Two years ago he suddenly lost his speech for about fifteen minutes; but, as he then completely regained it, nothing was thought about it at the time. Since then, however, he had again lost his speech on several occasions for an hour or two, but underwent no special treatment. In July last he began to have intermittent attacks of paralysis, which always affected the right side, but only lasted for a few hours at a time, after which he again felt quite well. After having had about a dozen such attacks, he at last, on August 30, had a real apoplectic seizure, accompanied with loss of speech and consciousness, and total paralysis of the right side. His consciousness returned in about three hours, his speech, to some extent, at the end of the first week. The distortion of the face lasted only a day or two, and the leg also began to improve after about a fortnight. The arm only improved to a slight extent during the first month, and has lately been quite stationary, so that he is thoroughly disabled from working. Patient looks wretchedly out of health—in fact, thoroughly broken down. Tongue deviated to the left side and fissured. No affection of the cerebral nerves; but he complains of a constant aching pain at the back of the head, and frequent flushes of the face, which make him feel restless and miserable. Memory has been gradually getting worse; speech is thick and somewhat hesitating. The attention is apt to wander from one thing to another, and since the paralytic attack "he has said and done foolish things." Arm is to a great extent useless, through a semi-paralytic condition of the deltoid, serratus, trapezius, triceps, and extensor digitorum communis muscles. There is a slight contraction of the biceps, and flexors of the hand and fingers, and a certain amount of pain at the insertion of the deltoid. Slight anæsthesia and coldness of the whole upper extremity. Thigh and leg are weak; slight contraction of hamstring muscles. Digestion tolerably good; bowels regular; no disorder of the chest or genito-urinary organs. A small and tender node is on the left shin-bone, and at the right hip there is a large cicatrix from a syphilitic ulcer, which healed about two years ago. Ordered potass. iodidi gr. v., ter. die.

November 7.—No change in the patient's condition. He takes the iodide well; this was therefore increased to ten grains, thrice daily.

14th.—No change in the paralysis; no iodism. Fifteen grains ter. die.

21st.—Same report. Scruple doses of potassic iodide.

28th.—Slight epiphora and coryza; no improvement in paralysis; on the contrary, the contractions, both in the arm and leg, are increasing. Continue iodide.

December 5.—Contractions still increasing; iodism is getting troublesome. The iodide was therefore given up, and an indifferent mixture substituted for it; at the same time galvanization of the cervical sympathetic and of the suffering nerves of the arm and leg was ordered three times a week.

12th.—First application of the constant current to the sympathetic removed the pain from the back of the head; arm and leg feel a little stronger; immediately after the application the paralyzed side is warmer than the healthy one.

January 30, 1871.—Patient has had seventeen applications of the constant current. He is able to use arm and leg so well that he wishes to be discharged, as he feels able to return to his work. Has not attended since.

The foregoing is one out of a number of cases of syphilitic hemiplegia which show that *iodide of potassium has no curative effects in syphilitic hemiplegia*, and that, if the patients do not recover by the reparative process of nature, we must have recourse to the same agent, which is the only one of real use in idiopathic hemiplegia—viz., the constant galvanic current.

Case 2.—*Recent Syphilitic Paraplegia.*—A paper-stainer, aged 32, had a chancre three years ago, and secondary symptoms affecting the skin and fauces at intervals. He was first seen on May 17, 1869, when he was suffering from complete paraplegia, which had come on rather suddenly about ten days previously. He had been apparently well, when he began one evening to complain of sensations of "pins and needles" in the feet; next morning he felt numbness in the lower extremities, and staggered in walking. As the day wore on he got worse, and towards evening was perfectly helpless. He was carried into the consulting-room of the Infirmary, being quite unable to move his legs. There was complete anæsthesia from the waist downwards: the bladder and rectum were not affected. The paralyzed muscles responded well to both the induced and continuous current. The legs were much colder than the arms. There was a slight degree of ptosis of the left eyelid, and incomplete palsy of the rectus externus of the same eye. The patient emitted a most disagreeable smell from the surface of his body, and this was quite as bad when the patient's back was turned as when one faced him. It was not the peculiar "poor man's smell" which is so often noticed in out-patients of hospitals, and which arises chiefly from filthy shirts and underclothing, nor was it the well-known unpleasant smell which is owing to foulness of the stomach; but it was a smell *sui generis*. Ordered gr. xv of potass. iod. thrice daily.

May 24.—Patient reports himself somewhat better; the numbness is not so great, and he can move his legs a little when he is sitting on a chair. Gr. xx. of potass. iod. thrice daily.

31st.—Patient takes the iodide well. Can stand when supported by one person's arm; moves his legs more freely.

August 2.—The iodide has been continued without ever disagreeing. He can now walk pretty well for about a mile with the aid of a stick; anæsthesia completely gone.

October 18.—Patient presents himself, apparently quite well. The smell has completely disappeared. Discharged.

This is one of a class of cases showing that *in recent cases of syphilitic paraplegia large doses of potassic iodide are sufficient for a cure.*

Case 3.—*Syphilitic Paraplegia of Three Years' Duration.*—A cabinet-maker, aged 39, married, of wretched appearance and sallow complexion, applied at the Infirmary on February 27, 1871, complaining of inability to walk. It appeared that he had long suffered from shooting pains in the head and limbs, a feeling of faintness, and weak sight. A twelvemonth ago he occasionally lost his sight completely for a few hours, after which it would return. He is deaf in the right ear. At the commencement of 1868 he began to suffer from "pins and needles" in the feet, and gradually lost power over the lower extremities. There had never been complete paralysis; the patient could turn in bed, and walked slowly and in a jerky manner with the aid of a stick and another person's arm. He cannot stand with his eyes closed for more than a few seconds, finds it difficult to put his foot on a chair, and has scarcely any command over the ankle-joints. There is difficulty of micturition and defecation. The patient, who seems to be a truthful and religious man, denies having had any sexual relations out of wedlock, and says he had never had any sore on the penis. His wife, who accompanies him, has the appearance and bearing of a woman of the town, and has a copper-colored eruption on the forehead and neck, and swollen cervical. On being questioned, she complains of a "nasty discharge from the womb," which she has had for a long time. Patient was ordered potassic iodide, in ten-grain doses ter die, and a tablespoonful of cod-liver oil twice a day.

March 6.—Feels rather better in himself, but is still very poorly on his feet. Dose of potassic iodide increased to fifteen grains.

13th.—Much the same as before. To take twenty grains of the iodic salt thrice daily.

April 3.—Symptoms of iodism; the dose is reduced to ten grains ter die. There being no improvement, the constant galvanic current was ordered to be applied to the spine three times a week.

June 26.—Patient, who lives at a considerable distance from the Infirmary, has only been able to attend once a week for the application of galvanism. The general aspect of the case remains unchanged, although considerable doses of the iodic salt have been taken for four months. Patient ceased attendance.

This is one of a class of cases showing that *in syphilitic paraplegia of long standing, iodide of potassium produces little if any benefit.*

Case 4.—*Neuro-Syphilis of Nineteen Years' Standing.*—A carpenter, aged 54, a very intelligent man, applied at the Infirmary on April 1, 1870. He had had a chancre in 1851, followed by rash and sore throat. Three months had scarcely elapsed after the primary affection when cerebral symptoms began to make their appearance. He lost his memory to a great extent, had difficulty in speaking, and gradually became very weak in his legs. He applied at a general hospital, and after two months' treatment was apparently quite recovered. Two years after he had several convulsive fits,

in which he lost his consciousness; and some years later he was out of his mind for a few days, and very violent. He is a total abstainer, but occasionally feels now as if he were drunk and would fall; but he can by an effort rouse himself "without going off." His speech is now tolerably distinct, although articulation seems troublesome; his memory is better than it was ten years ago; he feels no diminution of his intellectual capacity; he has slight ptosis of the left eyelid, and numbness in the third and little finger of the right hand. He applied at the Infirmary chiefly on account of his walking so badly—indeed, he walked like a man suffering from locomotorataxy. As it appeared that the man had already taken large quantities of mercury and potassic iodide, no medicine was given. The constant current was applied continuously to the spine, and intermittently to the nerves of the legs. After twenty applications the patient walked very much better than before, and ceased attendance.

This is one of a class of cases showing that *in syphilitic paraplegia of long standing the constant galvanic current is an excellent remedy, which should always be employed when iodide of potassium fails to do good.*

Case 5.—*Syphilitic Affection of Cerebral Nerves.*—A shoemaker, aged 35, had for the last three years suffered from "venereal." He now (May 8, 1871) complains chiefly of drooping of the right eyelid, and the rectus internus of the same eye appeared paralyzed. Nocturnal headaches were likewise complained of. Potassic iodide was given in ten-grain doses, and the constant current was applied to the levator palpebræ superioris and rectus. After a few weeks of this treatment the patient was apparently quite well. That the ocular muscles were beneficially affected by the constant current, and not so much, if at all, by the iodide, became clear, from the circumstance that there was immediate improvement after each application, and that no progress was made in the interval between two applications.

It is of importance that in cases of this kind *the constant current should be used early*, as when the ptosis has existed for many months or years it often resists treatment which would almost certainly have cured it in the commencement of the affection.

On analyzing the symptoms of neuro-syphilis, we cannot experience any real difficulty in bringing them into accordance with the teachings of recent physiological pathology. During the last ten years we have evidently been too much under the influence of the writings of Engelsted, Gros, and Lanceraux, who, in a number of cases of fatal neuro-syphilis, did not discover any anatomical lesions; from which it was concluded that neuro-syphilis was probably always a merely functional disease. We are surprised to find that even so recent a writer as Dr. Beyer * (*New York Medical Journal*, 1870) admits this now completely untenable view. Indeed, it may be fairly said that

* The author has evidently mistaken the name. He doubtless refers to Dr. W. H. Van Buren. (ED.)

we may always discover structural changes in the nervous centres of syphilitic persons who have died with striking nervous symptoms, if we only know how to look for them. It appears from the observations of Virchow, Moxon, Heubner, and others that too little attention has been given to the examination of the cerebral arteries. On the other hand, it would plainly be a mistake to ascribe *all* nervous sufferings of syphilitic patients to coarse structural lesions. Some symptoms, although apparently formidable, disappear so rapidly—with or without treatment—that they must be looked upon as owing to temporary vascular disturbance within the cranium, viz., sudden changes in the diameter of the blood-vessels, and consequent variations in the amount of blood contained in them. Slight serous effusions, the absorption of which, under proper treatment, is easily effected, probably occur likewise. But where the symptoms are of slow growth, and an exceedingly gradual change in the physical and mental constitution of the patient is brought about, the pathological lesion is most probably *external* or *internal pachymeningitis*, which is most frequently found in autopsies. We may fairly assume that the severe headache from which so many syphilitic patients suffer is referable to such inflammation. It is found that either purulent—or sanguineous, or caseous exudation—products accumulate between the tabula vitrea and the dura mater (external pachymeningitis); or that the dura mater, arachnoid, and pia mater coalesce with each other and with the surface of the brain, forming thick gray fibrous callosities (internal pachymeningitis). Such formations necessarily cause pressure on both nerves and arteries in the neighborhood of which they occur. If nerves are thus compressed they lose their function, and may gradually become atrophied. The coats of arteries coursing between these exudations—products—undergo degeneration—the width of the blood-vessels is diminished, and at last complete occlusion occurs by thrombosis. Whether plugging of arteries also occurs spontaneously without previous meningitis is at present not settled. Other pathological processes which may give rise to nervous disturbance are, gummatous tumors of the cerebral substance, and osteo-periostitis of the bones of the skull, chiefly on their inner surface; but such lesions are far more rare than those previously described. A succession of apoplectic seizures can only be explained by thrombosis, in consequence of multiple circumscribed disease of the cerebral arteries, the direct result of which is softening of the corresponding district of cerebral matter. When the patient recovers for a time without special treatment, the improvement is due to the establishment of collateral circulation in the brain,

which is becoming gradually satisfied with a less abundant and more circuitously yielded supply of blood.

Dr. Althaus believes that the constant galvanic current acts beneficially in neuro-syphilis, not so much by repairing the damage done to individual blood-vessels by thrombosis as by powerfully promoting collateral cerebral circulation, whereby the progress of softening is prevented, the nutrition of already softened matter improved, and thus function gradually restored, either completely or partially. Potassic iodide cannot do this; it may be able to neutralize in, or eliminate from, the system all or most of the syphilitic poison which causes the arterial disease, that in its turn gives rise to softening and hemiplegia, but it cannot cure the softening where this has proceeded to any considerable extent. This is the reason why the constant galvanic current must be looked upon as the necessary complement of potassic iodide in the treatment of most forms of neuro-syphilis.—*Medical Times and Gazette*, Nov. 18th and 25th, 1871.

THE MODERN TREATMENT OF THE ADVANCED STAGES OF CONSTITUTIONAL SYPHILIS.*

By WILLIAM ACTON, F.R.C.S.,

Fellow of the Royal Medical, Chirurgical, and Statistical Societies of London, etc.

On what constitutes the virus of syphilis, I fear we know little more at present than we did thirty years ago. Experience, however, has corroborated M. Ricord's observations, that relapses of constitutional syphilis are not uncommon even after long periods of apparently perfect convalescence. These accessions of disease we may attribute sometimes to neglect of treatment; but we must admit, likewise, peculiarities of constitution and temperament as bearing on the tendency, which, in spite of the best regulated treatment, will be followed by relapses. In other instances it is noticed that any general disease which will debilitate the system may be followed by an attack of constitutional syphilis, which without such debilitating cause would never have occurred. The old theories about the influence of *ferments* seems to be borne out by some of these exceptional cases.

Practitioners, however, will agree with me that, in the present day, in some of these rebellious cases patients and medical men

* Read before the Surgical Section at the Annual Meeting of the British Medical Association in Birmingham, August, 1872.

both lose confidence in remedies, and there are those among us who, after seeing such relapses, doubt if it be the effects of syphilis or mercury which we have to treat in these advanced cases.

The *treatment* should consist in ameliorating the symptoms, commencing with those that are most urgent. We should attempt to improve the broken-down constitution, too often found in these instances; if mercury have been given, we must leave it off till the constitution has somewhat recovered. Our object should be to place the patient in the best possible condition as regards air, diet, and freedom from anxiety, and, if possible, to give him confidence that the disease is curable, for the moral and mental depression to which the patients are reduced is often very painful to witness.

This being done, I commence with tonics and iodide of iron. If there be ulcers, I treat them with the ointment of nitric oxide of mercury. If the throat and voice be affected, topical applications must be used. If osseous or periosteal tumors exist, iodine or blisters should be applied to reduce the size of the swellings and prevent disfigurement, or pressure on the brain or spinal cord. This local and general treatment will act almost as by a charm in relieving sleeplessness and pain in the bones and joints.

In the commencement, notwithstanding that iodine may have been taken (according to the statement of the patient) without previous benefit, I commence the syrup of iodide of iron in bitter infusion, taken at meal-time in moderate doses. As long as the remedy tells on the constitution, I adhere to moderate doses; but as soon as convalescence tarries or progress is not made, I increase the dose even to two drachms three times a day. When the system becomes tolerant of these doses, I change the syrup for the iodide of potassium in solution, beginning with ten or fifteen grain doses, taken at meals and dissolved in large quantities of fluid.

The subsequent treatment should be guided not by the number of grains given, but by the effect which the remedy has on the complaint. As soon as the disease ceases to retrograde, I augment the dose with the best possible effect. When the preparations of iodine and potash cease to benefit the patient best, I add bromide of potassium, not in combination with the iodide, but prescribe it at a different time of the day. It frequently happens that we succeed in curing the disease with these salts, but if the complaint be very persistent, if relapses occur after short intervals, I no longer hesitate to give mercury, and my hearers may be glad to learn what are the indications we follow in the administration of the remedy.

TREATMENT WITH MERCURY.

As a general rule, it must be admitted that mercury is not required in the treatment of the advanced stages of constitutional syphilis. In fact, we attempt to cure our patients without resorting to the mineral. On the other hand, there are many instances in which the recovery hangs fire; the patient ceases to improve even under large doses of iodine. The disease becomes stationary. Yet such are the objections of some practitioners to a course of mercury, that, in spite of the recurrence of severe symptoms, the antimercurialist will not give mercury in any form. This is an error of the day. The rule which experience teaches us is, that if a relapse occur, or if the progress of recovery be arrested, after the various preparations of iodine have failed, some of the mercurial preparations must be had recourse to, judiciously given and closely watched. In some cases, friction with mercurial ointment will be most beneficial; and I must admit that in England I find the old plan of rubbing in mercury answer better than almost any other that I am acquainted with. There are those who employ fumigations. M. Ricord is very partial to a prescription combining biniodide of mercury, iodide of potassium, and sarsaparilla. In these stages, the writers of the last century had a high opinion of corrosive sublimate; but this irritant poison has fallen into disuse in modern practice. Those of my hearers who are acquainted with the writings of the older authors on syphilis need not be reminded of the almost miraculous recoveries detailed after giving mercury, long before iodine was known; and it is stated that the patient never had a relapse. These old writers, however, omitted to state how often the remedy not only failed, but brought the patient to an early and untimely grave. I can bring to my recollection many instances which, I have every reason to believe, died from the administration of mercury given on the old plan, and which would now be rescued by the mercury being preceded by the different preparations of iodine.

If mercury be found beneficial, as I am sure it will be, if judiciously given and carefully watched, the symptoms of syphilis subside, and the preparation should be presisted in till every vestige of the disease disappears. The dose required is sometimes surprisingly small. I have known obstinate symptoms, which have withstood iodine, disappear in a week. In a case now under my care, of syphilitic nodules of the testis, a six weeks' course of frictions has been required to enable the testis to recover its former elastic feel, and its functions are now performed satisfactorily. It is singular to notice in these cases

how the general health improves under mercury. The patient loses the habitual earthy expression, becomes florid, and gains flesh; his spirits improve as the local affection declines, and he ceases to be liable to relapses.

Such, then, is the course of syphilis, and we must admit that it is a very serious complaint; and the few minutes that are left to me cannot, I think, be better employed than in stating that, according to a recent return of the Registrar-General, the deaths of twelve infants and of one adult were directly referred to syphilis, showing an excess of five upon the corrected weekly average. Without an intimate acquaintance with the laws of syphilis, no one can venture to legislate on what are now popularly known as "Contagious Diseases."—*British Medical Journal*, August 17, 1872.

RICORD'S LATEST VIEWS ON SYPHILIS.*

Dr. Ricord, after acknowledging the reception which had been accorded him, said he had not prepared an address, as he had not come with the intention of speaking; but Mr. Acton had caught him and obliged him to speak, which was a trick. (Laughter.) He had come to listen and to learn, but not to teach. However, he must say something, though there was no necessity for him to say much, as Mr. Acton had so nearly stated his views and his mode of treatment that there was very little for him to add. There was one great question in regard to syphilis, and it was this: Could it be cured radically? In former times all venereal affections, no matter what, were considered as belonging to syphilis, and certainly there was then an immense number of radical cures by mercury or any other means. In this way swellings of the glands, soft chancres, even warts, and other things not belonging to syphilis, were easily enough cured, radically cured; and there were no after-consequences, no secondary symptoms. This explanation would account for the immensely large number of cases of (reputed) syphilis which used to be radically cured. But, since syphilis had been correctly diagnosed, the inquiry to which he had devoted a large part of his life was to see what belonged to syphilis, and what resembled it without belonging to it. There

* Speech before the Surgical Section at the Annual Meeting of the British Medical Association at Birmingham, August, 1872.

had been great differences in the results of treatment—so much so that a doubt, as Mr. Acton had said, had arisen whether real syphilis could be cured. That doubt as to the curability of syphilis was not recent; it was a doubt which old authors had expressed; and one particularly, with a curious name, which they would probably remember—"Mercurialis"—thought that now and then an armistice might probably be made with syphilis, but that there was no real cure. In fact, they frequently saw that a long time—months, years—after the symptoms had been treated new symptoms appeared. And so the doubt whether syphilis could be radically cured, or whether the cure was only temporary, with a prospect of the symptoms returning, might still remain; he (Ricord), however, had established the law of the unicity of the diathesis of syphilis. The law of syphilis was the same as the law of small-pox, cow-pox, or measles. A man could have but one attack so long as the disease remained in the constitution—that was to say, according to his opinion a new attack could not take place while the system was still under the influence of the old diathesis. Well, it was exactly so with syphilis; as long as a patient was laboring under the diathesis of syphilis, another *infection* of syphilis could not occur—it was impossible. For instance, after indurated chancre, and the appearance of secondary symptoms, it was not possible for the patient to contract a new indurated chancre, with swelling of the glands, manifestation of skin disease, and so on. After one attack the patient could not have another infection as long as the influence of the first remained in his body; a second contagion could not take possession of the system at the same time. If, perchance, something of the kind took place, the symptoms would not follow the regular evolution. So, when a patient had constitutional syphilis, if a new chancre appeared to be hardened they would not find the glands swell, or the early manifestation of skin disease appear; and so of other symptoms. Superficial ulceration might take place just as a spurious form of vaccination might arise on one who was still under the vaccine influence; but it was not a true case, it was not attended with the sequelæ. But if the constitutional disease were cured, if the syphilitic disposition were completely eradicated, then the patient would be able to contract a fresh indurated chancre, with all the subsequent symptoms. If this were the case—and he had observed it with great care, his experience dating back forty years—it proved that syphilis could be cured; and if syphilis could be eradicated, to ascertain whether a patient was cured or not when all the symptoms had disappeared there would be nothing else to do (though he knew that could

not be done) but to try inoculation from an indurated chancre. If vaccination did not take, they were sure the vaccine disposition continued; if it did not continue, vaccination could take effect. In regard to syphilis, the proof had not been carried to this extent; but he had been able to observe that as long as the syphilitic influence continued, a patient could not contract an indurated chancre anew, and that, consequently, if cured, a new infection might take place. This was a great point gained in science, and it proved what he had said, that syphilis could be radically cured. Now, as to the treatment of the disease. As he had told them, Mr. Acton's ideas were completely his idéas, explaining his manner of treatment and his practice. He would first speak of the treatment of the first stage—that was to say, the primary sore. As soon as he had ascertained that there was a hardened chancre, with a swelling of the glands—not inflammatory, because the glands in this case never suppurated—he immediately instituted the mercurial treatment. There was one point on which there was some difference of opinion: many believed that it was impossible to prevent the accession of the secondary symptoms, the first manifestation of constitutional disease; many thought that no matter what treatment was employed the sequelæ would appear. Well, he had ascertained that if the treatment were soon begun and well carried through the bursting out of the first secondary symptoms, the roseola, the swelling of the glands of the neck, etc., might be prevented. If this were not frequently the case it was because the treatment was resorted to too late, when the disease had had time to take root, and secondary symptoms were about to show themselves. In such cases it was not astonishing that secondary symptoms should appear, and the treatment ought not to be blamed; if the treatment were steadily continued they soon disappeared. But if the treatment were begun early, the observation of forty years gave him the assurance that secondary symptoms would not appear. When secondary symptoms had appeared, the best treatment was, as Mr. Acton had said, mercury. If they wished for a perfect cure, this treatment must be continued. In general it was not persisted in long enough; it was dropped as soon as the symptoms disappeared, or a short time after, and then it was not astonishing to see them reappear. But if the treatment were continued five or six months, having regard at the same time to sustaining the constitution in general, relapses would be found to be infrequent. He observed very few cases of relapse, and there would not be many when the treatment was well kept up—when the patient had patience enough, and the physician

sufficient courage. After six months of that treatment and no symptoms reappearing, then the treatment with iodine must be begun, and continued for five or six months more. When a patient went to him, he said, "You will have a year's treatment—do you consent to that?" "Yes." "Very well; we will go on. If not, good by." There were cases in which syphilis occurred in a healthy person—the only disease was syphilis. Then treatment was very easy—the case was a simple one; they had but one enemy to fight—all went on regularly. But, unhappily, in many instances syphilis was not alone; there was something else—scrofula, skin disease, scurvy, low constitution, poorness of the blood. They must understand that such complications as these altered the case; the treatment did not act so powerfully as it would do in the first case, as many of these complications were aggravated by the treatment. For instance, syphilis and scurvy might coexist —and the characteristic of the latter was poorness of the blood, while that of the former was a plastic condition of the blood. Here, therefore, was a counteracting influence to the treatment for syphilis. Now one thing must be known. Perhaps he was speaking too long? (No; go on.) Well, in many instances syphilis became the secondary consideration, and they must begin with the constitution of the patient, as debility was the disease that required first treatment. They must attack the strongest enemy first. Syphilis was sometimes quiet, and stopped and waited till they came to it. So, when they had improved the constitution, they might commence with the treatment, and they must begin by treating the constitutional complication. The best treatment was the proto-ioduret of mercury. The stomach bore this well in general. Sometimes it gave rise to a little diarrhœa, which was an easy thing to moderate; but when the stomach was not tolerant of the remedy, one capital treatment was that which Mr. Acton had told them he had confidence in—namely, rubbing-in. If this were not an unpleasant and disagreeable operation, certainly it would be in general about the best; he himself should prefer it. In rubbing-in, the action of the remedy was powerful and quick, and the stomach was not at all troubled with it. If it were not so disagreeable, and were a thing that could be done without being noticed, he should give it the preference. However, there were cases in which the skin was otherwise affected, in which there was a skin disease, and then friction could not be used. In a case of complication of syphilis and herpes rubbing-in could not be resorted to. In general, patients bore the iodide of potassium well, and in large doses.

For his own part he frequently employed forty, sixty, eighty, even a hundred grains a day, and more. They must bear in mind that if they gave too small doses to some patients they would have no result; it was a remedy that passed through the body with great rapidity. He had had great experience of it, and he had found that in half an hour it had passed away in the urine. Iodide of potassium was a sort of broom of the blood. So they saw that the methodical treatment was this: mercury, iodide of potassium. But only one for the first stage, and only the other for the later stage of syphilis? No, the rule was absolute that as long as there were secondary symptoms well marked, mercury must be given; when there was a mixture of secondary and tertiary symptoms, mercury and iodide; for tertiary symptoms, iodide. To treat some patients with iodide would not advance them in any way. Why? Because there was frequently in the constitution, in the blood, something of the second stage, something that required the mercurial treatment. This might not show itself, but when iodide of potassium ceased to do good, the disease remaining stationary, let them go back to mercury again, and they would have a splendid result where they had thought there was no further possibility of curing the patient. This was what Mr. Acton had said, and he was completely and absolutely of Mr. Acton's opinion. But there was another thing. When syphilis had lasted for a long time, and had had a great effect on the constitution, it in some way disappeared, and left the patient with a complication existing that was not existing before. Sometimes a long course of treatment brought on a new disease —wasting of the constitution, poorness of blood. They must then stop all the specific treatment, and, applying themselves to the principal symptom, restore the constitution by preparations of iron, bark, tonics, and proper food, so bringing the patient back to the possibility of undergoing anew a regular methodical treatment, either by mercury or iodide, or a combination of these two remedies. In former times, when a person was thought to be syphilitic, physicians seemed unable to entertain any other idea than that of syphilis, and acted exclusively against a specific disease, neglecting everything else, and in that way they experienced all the bad effects and accidental complications which a bad administration of the remedies would produce. Mr. Acton had spoken of the use of bromide of potassium. His views were exactly the same as Mr. Acton's with respect to the use of the remedies at different stages, the necessity of having regard to the complications that might exist, and of dropping the treatment for a while till the

constitution was restored. This was regular and methodical, and his own manner of practice. But now, was bromide of potassium an anti-syphilitic remedy? He did not believe that it was. He might be mistaken; but he had experimented with it in syphilitic symptoms, and without any apparent result. But it was a splendid remedy in complications of syphilis. In some cases of symptoms referable to the nervous centres, bromide of potassium was an adjunct, and came to the help of mercury or the treatment by iodine. In some cases of brain disease with syphilis, and of disease of the spine or epilepsy, bromide of potassium did wonders. So that they would see it was a remedy to be applied in nervous complications that might occur, but they must not depend on it as an anti-syphilitic remedy. Now, there were symptoms following syphilis which were not syphilitic, and these must not be treated with mercury or iodide of potassium. For instance, there might be necrosis. Well, they could not bring a dead bone back to life, no matter what quantity of mercury or iodide of potassium they might give. A physician must know these things, and he (M. Ricord) ought almost to apologize for bringing them forward. It should be observed that specific remedies did not always act specifically. Certainly, there was no specific effect without a specific cause, but specific causes did not always act specifically. So there were some effects of syphilis, such as disease of the bones, that would afterwards act as a common irritant. In syphilis there might be an ulcerated bone in the nose or mouth, bringing on suppuration; mercury or potassium would not remove that, but let the diseased bone be removed, and the patient was frequently cured. They must take note of all these conditions—the nature of syphilis, the manner in which it conducted itself, its action on the constitution. Let them particularly take note that the general law of syphilis was the same as the general law of small-pox, vaccine, and measles. If they were sure of this from what he had said and from their own experience, then they might be sure that syphilis could be perfectly, radically cured. They could tell their patients that, and give them courage and hope. If the patient had courage to go through with the treatment, and the physician had courage enough to stick to it, the patient might be radically cured. He thanked them for the reception they had given him; it reminded him a little of his hospital in Paris.

A question was asked whether Dr. Ricord was a believer in salivation.

Dr. Ricord replied—No, surely not. Salivation was an accident following the treatment, and it must be avoided as

much as possible. There was but one case in which he approved of salivation, and that was in disease of the eye—iritis. When this occurred, and salivation was brought on, the inflammation of the iris subsided.

Dr. Gross asked whether the soft chancre was capable of contaminating the constitution.

Dr. Ricord said his opinion was that a soft chancre, when accurately diagnosed, never gave rise to constitutional disease. This was a law as absolute as possible. But they must be careful, or errors of diagnosis might be made. It was not always easy to establish the difference between soft and hard chancre, but when the diagnosis was certain, they might be sure they would not have any constitutional disease after the soft chancre. On the contrary, even as long as six months after hard chancre, secondary symptoms would appear. This was one of the most clearly established facts in practice. But the hardness of the chancre was not always well marked (*bien formulée*); it might be very superficial in those varieties that were attended with excoriation. When there was a something like parchment at the base, a chancre was very easily taken to be soft, but was not so; and he had had cases sent to him as instances of soft chancre which had been followed by secondary symptoms, but which were well characterized by the parchment-like base. However, there was a symptom of more value than the parchment base, a symptom that was one of the most important witnesses to constitutional affection, and that was the non-inflammation of the glands—they were cold and dull. In general several of them became enlarged; it was very seldom that only one was found to swell after hardened chancre; and not only were the glands swollen but the enlargement frequently occurred on both sides, in both groins. The enlargement of the glands was of much value as a characteristic of hardened chancre. The enlarged glands appeared very early, even during the first fortnight of the existence of the sore. With the soft chancre the glands did not always swell; in a great many cases there was no swelling. They would never find a real hard chancre without swelling of the glands; and they would also find many cases of soft chancre with swelling, these cases depending upon surgeons confounding the hard chancre with thickening dependent upon inflammatory infiltration of the tissue immediately around the sore. But if the glands should swell after soft chancre, it was probable that suppuration would come on. With hard chancre there was no inflammation and no suppuration. The older writers directed their efforts to cause an indurated sore to suppurate, in the

belief arising from the practical observation that when a bubo suppurated there was no constitutional disease, and therefore they were under the belief that the poison was thrown out of the body. In their quaint way of putting the fact, "they did not like to shut up the wolf within the fold." But they could not bring on specific suppuration in the case of indurated glands; it was impossible. He had tried all means of doing it, and could not succeed in the cases of specific suppuration. In the instance of soft chancre what had they to do—await the occurrence of suppuration, which might either be attended by simply inflammatory or specific bubo? With the soft chancre the inflammatory bubo appeared sometimes two, three, or four weeks after the occurrence of the chancre, and it had the characteristic pus of the soft chancre. There was such a difference between hard and soft chancre that it was difficult to make a mistake. When a patient consulted him (M. Ricord) suffering from soft chancre, he said to him, "Be quiet; you may have a bubo; that will suppurate, but your constitution will be unaffected; you will not be liable to secondary symptoms." With a hard chancre he could predict indurated glands, attended by constitutional symptoms, within six months, provided proper treatment were not followed. He would add, that when it was decided that the case was one of hard chancre or soft chancre, the treatment was very simple. When there was a doubt as to the nature of the chancre, he waited till some characteristic symptom arose. But there were cases in which the existence of a soft chancre did not prevent a patient from contracting a hard chancre. The patient might have the two species at the same time, contracted from different sources. The two species, hard and soft chancres, do not depend upon the difference in the ground, but on a difference in the seed (*contagium*). So that the new comer who had relations with a woman suffering from the two species could take his choice. If the patient had a true indurated chancre and well diagnosed secondary symptoms, he might catch the soft chancre as often as he pleased, and it would be unattended with specific constitutional disturbance.

Mr. Lord (London) asked Dr. Ricord what was his experience of municipal interference in respect to contagious diseases in Paris, and what was his opinion as to the effect of such interference in promoting immorality and degrading the character.

Dr. Ricord said it was surely a very good thing to have the women examined. It made the disease less frequent—no doubt of it. From what had already been done in France he saw that the same practice would be beneficial here. It was already a

great thing that English sailors no longer brought the disease into France; the French would take care it did not return back into England, and that was a free exchange.—*Lancet*, August 17 and 24, 1872.

CASE OF SYPHILITIC DISEASE OF THE BRAIN:

COMPLETE PARALYSIS OF RIGHT ARM; PARTIAL PARALYSIS OF RIGHT LEG; APHASIA.

By J. LOCKHART CLARKE, M.D., F.R.S.

H. H——, a builder, aged forty-seven, contracted syphilis nineteen years ago. Two years later he had a large syphilitic ulcer on the right leg. Ever since he suffered at various intervals from periostitis of the legs, sternum, shoulders, and especially of the right brow, which was frequently swollen and tender to the touch. These symptoms were soon removed by iodide of potassium, in doses of from five to eight grains; and, as he was somewhat cachectic and weak, I prescribed at the same time some citrate of iron and quinine.

During the last two years he had great anxiety of mind arising from losses in business, and frequently indulged to excess in the use of spirits.

On Feb. 14th, 1863, he had sudden but only partial loss of power in the right arm and leg, and fell to the ground. On protruding his tongue it pointed to the right, while the face was drawn to the opposite side. The attack was preceded for some hours by occasional inability to complete the pronunciation of a word or to articulate all its syllables. The right hand and wrist were much swollen. There was partial ptosis of the left eyelid, and a dull, stupid expression of the countenance.

On the following day, when I saw him with his local medical attendant, he had taken some ammonia, some calomel, and an aperient. He was ordered to have his feet in a hot mustard-bath, to have a blister behind the left ear, and to take ten grains of iodide of potassium every four hours.

Feb. 16th.—Somewhat improved; can move the right arm a little better; can walk across the room alone, but drags the right leg.

17th.—Much improved; can lift his right arm and shake hands; wrist and hand less swollen; tongue projected less to the right side. Ptosis of left eyelid has almost disappeared; power of articulation improved.

18th.—Continues to improve. Can lift the right arm briskly; swelling of wrist and hand nearly gone; ptosis entirely gone; face perfectly straight; walks perfectly with right leg; only some hesitation in speech.

20th.—Continued improvement; has walked round the garden.

Two days after he went to Brighton apparently well, and in good spirits. While there he took citrate of iron and quinine, with smaller doses of iodide of potassium.

In the first week of March he returned to London to appear in a law court, where he was subjected to great mental excitement. On the 13th, a month after he was first taken ill, he had another attack of paralysis. The right arm was completely paralyzed; the right leg was not much affected. The face was only slightly drawn to the left, but was more so when he attempted to speak or laugh. The tongue when protruded pointed to the right. He was quite conscious, but had an idiotic or imbecile expression of countenance, and his eyes were never directed to any one spot, but had the appearance of those of a drunken man. The conjunctivæ were finely injected, but not particularly red. The pupils were of moderate size. There was partial ptosis of the left eyelid. The skin of the face and body had a yellowish tint. Pulse moderate, but fuller and stronger on the affected side.

These symptoms were preceded for a few days by occasional pain and sensation of pressure on the vertex of the head. He was ordered eight grains of iodide of potassium, and five grains of bicarbonate of potash, in decoction of sarsaparilla every four hours; and a pill composed of one grain of subchloride of mercury and four grains of extract of hyoscyamus, every six hours.

March 14.—Expression of eyes and countenance improved; slight ptosis continues; right arm quite useless; when spoken to or questioned upon any subject, answers nothing but "No;" has passed three copious and offensive evacuations; is unable to protrude the tongue. Ordered a blister to the nape of the neck.

16th.—Expression of countenance and eyes decidedly improved. After much persuasion to speak, he articulated "Yes," and, with some difficulty, "I can't." Right arm still useless.

17th.—Continues to improve; articulates better; can protrude the tongue a little, and just move the right arm as it lies in bed; skin still tinged with yellow; has passed three copious and offensive evacuations.

20th.—About the same; gums affected by the mercury, with slight flow of saliva; right arm still useless. To omit the pills, but continue with the iodide of potassium.

24th.—Decidedly improved; can articulate several words in succession, and more distinctly.

April 6th.—General health excellent, and appetite keen; walks and drives out; but right arm still powerless, and no improvement in the power of articulation.

15th.—On waking in the morning he found that he could lift his right arm, and move it about slightly.

From this time he continued to improve. The right arm became stronger every day, although the elbow-joint was contracted and stiff. The improvement in the power of articulation was slower, and, curiously enough, after getting out a few words with difficulty and hesitation, he was immediately and irresistibly impelled to utter rapidly and quite distinctly the three words, "go to bed." By the use of electricity the contraction of the elbow-joint was much reduced.

For the last six years his health has been perfect. He is stouter and much more robust than he was before his illness, and not only superintends his business, but can walk for miles without fatigue. His intellect is perfectly clear, and his memory is excellent, but he has still some difficulty of articulation, although he can say everything that he desires, and keep up a continuous conversation. His articulation very much resembles that of a foreigner whose pronunciation of English words is awkward and difficult.

Such was his condition when I saw him a few days since (on March 30th, 1872), nine years after his first attack. I then ascertained that the temperature of his right side is variously reduced, the reduction decreasing from below upwards. His right foot is always very cold, and often, as he says, "icy cold." The palm of his right hand is two degrees lower than that of his left. The temperature of his right axilla was rather more than one degree lower than that of the left. The lobe of his ear and his head on the right side were slightly but sensibly colder than on the left.—*Lancet*, May 18, 1872.

ALOPECIA, AS AN ACCIDENT OF SECONDARY SYPHILIS.

By DR. ALFRED FOURNIER* (Paris).

TRANSLATED FOR THIS JOURNAL FROM THE ANNALES DE DERMATOLOGIE ET DE SYPHILIGRAPHIE FOR 1871 AND 1872.

Amongst the annexes of the cutaneous lesions of secondary syphilis, are the accidents which that diathesis induces on the hairy system and on the nails.

Syphilis frequently induces, in woman as frequently I may say as in man, the fall of the hair of the body, and particularly that of the scalp.

Cranial alopecia will first attract our attention. It is an accident about which certain prejudices are spread amongst the public as well as in the medical profession, which it is not without interest to render justice to. It is one of the most common symptoms, which greatly annoys patients, and about which you will be frequently consulted. You will therefore permit me to study this question with some detail.

1. At what time does alopecia (cranial or elsewhere) manifest itself in the evolution of the diathesis?

It is a generally conceived opinion that alopecia is a symptom of an old syphilis, dating back several years. If a man is seen becoming bald at maturity, it is immediately attributed to what is called by euphemism "*the effects of early piety*," which means in medicine, that a man of forty becoming bald would become so in consequence of a syphilis contracted fifteen or twenty years before. Alopecia would, therefore, according to this definition, be *tertiary*, a stigma distant from an infection lost in the lapse of time; but nothing is more false—more contrary to clinical truth.

Far from being a late manifestation, alopecia is, on the contrary, an accident of recent syphilis, dating back a few months —one or two years at the farthest. Syphilitic alopecia is *essentially secondary*.

It is almost a general rule that the hair begins to fall after the first secondary manifestations. It is usually towards the third, fourth, fifth, or sixth month of the diathesis that alopecia develops itself in the natural evolution of the disease. It is

* Clinical lecture reported by M. Michel, Externe to the Lourcine Hospital.

equally common to observe it in the last months of the first and in the course of the second year. Beyond that time it becomes rare, even exceptional, and if it even develops itself later it is almost always due to the specific treatment, which has delayed and mitigated it.

But I repeat, beyond the first years of the diathesis, beyond the period called secondary, syphilitic alopecia no longer exists: it is not met with.

2. *Mechanism* of this alopecia. What are the pathological conditions which prepare for, induce, and maintain the fall of the hair during the secondary period?

The hair of syphilitics falls in one of the two following manners:—

1. It either falls as a sequence to or in consequence of syphilides disseminated on the scalp.

2. Or else it falls—and it is even the most common occurrence—*without any local cause*, without any apparent lesion which explains its fall.

Case I. It is not rare to find, as an explanation of alopecia, disseminated syphilides of the scalp, superficial syphilides, more or less confluent, on a more or less extended surface, more or less obstinate in duration. Of whatever form, all these syphilides contribute to cause the fall of the hair. And how? According to all appearances (for we have not on that point any very precise histological ideas), by altering the hair bulbs. Amongst the lesions of the scalp, capable of causing partial disseminated alopecias, and of proportionate intensity to the confluence of the eruptive elements, we can more specially cite: Syphilitic acne, very common at the inception, even in the early stages of the secondary period, and characterizing itself by small crusts slightly elevated, of the size of the head of a pin, of a yellow or brown tinge, papulo-crustaceous syphilis, syphilitic impetigo, flat or superficial ecthyma, etc. Let us cite another form of syphilide, which, although but slightly known, is not the less common, particularly in women: *syphilitic pityriasis* or *furfuraceous roseola* of the scalp, consisting of scattered red spots, lenticular or diffused, sufficiently pale to escape examination more frequently, and covered with a very fine, almost microscopic desquamation, scarcely appreciable to the unforewarned observer.

Good fortune permits me to place to-day under your eyes a well-marked type of this form of syphilide. Here is a young woman affected since a few months with syphilis; amongst other symptoms, she complains of the fall of her hair. You observe that her hair is very thin—notably in spots. Examine

with attention the scalp of this woman; you will see here and there small spots scarcely of a rose tinge, most of them about the size of a lentil, and covered with pulverulent, purpuracious, and grayish scales. Is not this lesion very evident? But if you had not seen it closely, if you had not sought for it, it might have passed unnoticed. It is what most frequently happens, judging at least from the slight attention syphilographers have paid to this form of syphilide and by the silence of most in reference to it. Nevertheless, it is this lesion which contributes the most to cause the fall of the hair—to denude the scalp in spots.

But it is far from being the rule that in all cases local lesions are met with, so to speak, which legitimize the fall of the hair. Frequently, much more frequently, the hair of syphilitics falls without any appreciable lesions; or else, if some of these lesions exist, they far from account for the alopecia, for they explain why the hair falls when they exist, but do not explain in any manner why it falls when they do not exist. And such is, I repeat it, most usually the case. On a number of patients you will detect more or less marked alopecias, with a few syphilitic pimples scattered over the scalp, which will not account in any way for general depilation of the scalp. Why, in these conditions, that is to say, in the absence of lesions appreciable to the most careful examination, why does the hair fall? We do not know. It is vaguely stated that this alopecia is a "constitutional phenomenon"—that it depends upon "a general modification induced in the organism by syphilitic virus." It may be so. But what is the mechanism, the pathological process by means of which this general influence succeeds in manifesting itself? We do not know, and it is an anatomical aspiration to fulfil. It is very probable that the fall of the hair depends upon a disturbed secretion or upon an alteration in the structure of the hair bulb; but that is only probable—it has not been scientifically demonstrated as yet. The only symptom which constitutes the clinical study of alopecia is the fall of the hair, for no other phenomenon is associated with it. The hair falls, that is all. Syphilitic alopecia is absolutely indolent, it is not accompanied with any pruritus, with any local heat.

As to its site first: it is remarkable in that it has no fixed particular localization—a negative peculiarity, which, as you will see, distinguishes it from the other forms of alopecia. It thus develops itself almost indifferently in all the regions of the cranium, on the vertex as well as on the temporal regions, at the nucha as well as at the anterior portions. All the head is its domain.

On the contrary it is the peculiarity of certain forms of alopecias to affect a special region of the cranium, and to concentrate on it, to the exclusion of all others. For instance, senile baldness has the invariable characteristic of limiting itself to the anterior portions of the cranium, avoiding the lateral and posterior ones. There is nothing similar in syphilitic alopecia.

We may add that most alopecias of various origins develop with a true symmetrical regularity, and depilate the scalp equally from one side to the other. It is otherwise with syphilitic alopecia, essentially irregular and capricious, without observing symmetry, and affecting in the most unequal manner homologous portions of the cranium.

Syphilitic alopecia presents itself under two aspects, of which I have shown you numerous examples.

Sometimes it limits itself to a general thinning of the hair. The hair is then less abundant, less tufted, rarified on the entire extent of the cranium. Occasionally it concentrates itself on a series of spots scattered on the scalp, which it decimates to denudation, whilst it respects (in a relative manner at least) the neighboring portions.

Comparison will explain this double modus operandi of syphilis on the hairy system. There is a forest regularly planted; supposing that a tree is felled here and there in a certain order, what will become of that forest? It will be *thinned*, less tufted. Supposing on the contrary that in this same forest at a few points a large number of trees is felled covering a certain surface, without touching the neighboring portions, what will be the result? *Clearings* in the midst of intact thickets.

That forest is the hairy scalp, in which syphilis proceeds sometimes by general clearings, sometimes by a more or less regular, occasionally by a general felling scattered hap-hazard through portions relatively intact.

These two forms of alopecia are both very common. The alopecia in spots is that which is the most commonly observed when the hair is much affected by syphilis. It is the form of the cases of but slight intensity, if I can thus express myself. It is also the form which gives to syphilitic alopecia its particular and most accusing stamp.

It is usual to see these two forms co-exist, and associated in the same subject. You see an example of it in this case, whose head, terribly ravaged by syphilis, presents here a general thinning of the hair, and there small scattered spots where the scalp is absolutely denuded, depilated, totally bald.

Syphilitic alopecia is more or less intense. There are four degrees of it.

1. In most cases, particularly in those in which the diathesis has been treated early, the fall of the hair is but slight. The hair falls for a time, but the patients are the only ones who notice it, the depilation is not marked enough to become apparent.

2. It is not uncommon for the alopecia to take a high degree of intensity, and then it can scarcely pass unobserved. The hair falls profusely and appears less adherent. The patients do not dare to comb their hair, for each stroke of the comb seems to draw all the hair out. Passing the hand through only, suffices to pull out a dozen or more.

3. Much more rarely alopecia exaggerates itself more and becomes excessive. Such is the case of the woman whom you have just seen, whose cranium is almost denuded. It is particularly then that is seen at one time the general thinning of the hair, and the scattered spots where the scalp is absolutely bald, with its white color.

4. Finally, in a manner altogether exceptional, the alopecia may be *complete*, or almost complete. *All* the hair falls, or there only remains an insignificant number. I have only observed this but once, in a young woman, whose history I have preserved. This unfortunate one, after a severe syphilis, and of which the manifestations were as multiple as possible, literally lost all her hair; *all*, I may possibly exaggerate, for there remained on a given day seventeen. Seventeen hairs,—such was for a time the exact number of her hairs. I hasten to add that such an extreme syphilitic alopecia is, according to all authors, prodigiously rare—almost unheard of in the annals of science.

Adding, as a last detail, that syphilis does not always limit itself by causing the fall of a portion of the hair, it frequently gives to those which remain a few rather singular characteristics, which, comparatively unobserved in man, do not escape the coquetry of woman.

The hair, under the influence of this diathesis, occasionally loses its normal *lustre;* it becomes tarnished, dry, woolly, similar to dead hair, to false hair, which Diday describes so well, "that the patients appear to wear a wig, although their hair is natural."

One of my patients was complaining lately of the unusual condition of her hair: "I do not know what is the matter with my hair; it is not as lustrous as heretofore; notwithstanding the utmost care, the use of oil or pomatum, it is always dry, rough, uncombed, and tarnished."

Syphilitic alopecia is never but *temporary*. It occurs for a time, for a few weeks, usually for a few months, for a year at the farthest. Beyond that it moderates, it ceases. Even without treatment it ceases, as state a number of patients who consult us in an advanced period of the diathesis without having submitted to any medication.

Then, what happens when this alopecia is arrested either spontaneously or by means of specific treatment? *The hair* invariably *grows again*, the denuded spots become covered again, and finally the hair resumes its normal condition, unless profound lesions, true ulcerations have damaged the scalp. But with this exception, syphilitic alopecia always recovers, and the patients, even the most rudely tried, recover entirely, or almost entirely, the primary growth of their hair.

This repullulation following syphilitic depilation is daily exemplified before us by numerous cases. Many of our patients who had become almost bald, who come to consult us from various causes, have thick hair, which would satisfy many women. My patient with the seventeen hairs, of whom I was speaking, has to-day a superb crop, although she did not follow her treatment with exemplary vigor.

Very frequently we observe this regrowth of the hair. Of the number of patients who remain in our wards at a certain time, we see hair, after having fallen, start again and grow actively, as after shaving.

Even more: the hair does not always wait; far from it; the diathesis is mitigated or arrested in its evolution, and the hair grows again. Frequently alopecia ceases and repairs itself, even when other specific accidents break out, or are about to break out. It is, therefore, necessary to consider it as well as so many other manifestations of a similar nature as a *transitory* accident of syphilis, of a limited duration, analogous, for instance, to premature syphilides, finally as an accident which is essentially and forcibly compelled to disappear, and even to repair itself after a certain time, without the change to which it is subject influencing in any way either the future or the prejudging of the ultimate evolution of the diathesis.

From all this it results that practically syphilitic alopecia, which affects so many patients, particularly women, many of whom will consult you in despair, is not of any gravity. It is essentially temporary, insignificant in itself, at the most annoying, compromising for a time, always repairs itself, and does not leave any sequelæ. Syphilis is not among the number of diseases which can give rise to obstinate calvity.

The treatment of this accident is, as you will presently see, exceedingly simple.

First, very little reliance can be placed in local applications. Women hardly fail in such a circumstance to have recourse to all kinds of pomatums, of cosmetics, of lotions, of washes, "regenerators of the hair," etc.—all infallible remedies, which, strange to say, fail to have any effect. Nor do they derive any benefit from prescriptions of the too famous Dupuytren's pomatum; for example, of quinine lotions, or the tincture of cantharides, and of a hundred analogous formulas of equal efficaciousness.

Is there any more success to be expected from cutting or shaving the hair—a common practice, and recommended by a few physicians? I believe not. I have often advised my patients (men) to have their hair cut short for some months, and I have often seen them of their own accord have them shaved, but neither has ever had any appreciable advantage. If this be so it would be ill advised to counsel a woman to sacrifice her hair in view of compensations more than doubtful, not to say illusory. I have therefore, in this hospital, given up long since all practice of that kind. Prescribing only simple hygienic measures, avoiding the use of fine combs, hard brushes, prohibiting all head-dress which might pull the hair, and particularly—for that is the point, the only essential point—make them undergo a general anti-diathetic treatment. I thus always obtain a mitigation, then an arrest of the alopecia, with a little time and with the assistance of mercury.

Mercury, did I say? Ah! Were I not addressing physicians, that word would raise a tempest. For if there is an opinion received, and truly credited by the public in general, it is that which attributes to mercury a pernicious effect on the hair.

No axiom has ever been better received than this one: Mercury causes the falling of the hair. And mark it well, gentlemen: when one of your patients will see his hair falling, it will never be his disease—his syphilis—to which he will attribute it, but he will always censure you and your treatment, and will charge it to the account of the mercury. This prejudice dates from afar. It was born in the early days, when the French evil made its first appearance in the world, as testified to by the writers of the sixteenth century. Although energetically combated by the serious observers of all ages, it has not only survived, but will survive, and for a long time science will have to struggle against it, before it can be uprooted from the minds of the masses.

Yet it is the truth, the clinical evidence, that mercury wisely administered never has cost any one a hair, and far from

causing the fall of the hair, it restores it to those who have lost it by means of syphilis. How many times have patients presented themselves here, in the south, or elsewhere, with the head fearfully denuded, without having swallowed an atom of mercury! How many times besides have these same patients left our hospitals with their heads covered again, after having submitted to a mercurial course! What matters it? The prejudice exists, active, eternal, and like us, like our predecessors, you also, gentlemen, will have in your turn to cast accounts with it.

But we conclude, and say that practically, 1. Syphilitic alopecia does not require for a cure any local treatment. 2. Time and constitutional treatment amply suffice to arrest this lesion, besides so transitory.

Diathetic alopecia does not always limit itself to the scalp. Frequently it extends coincidentally to the eyebrows, the eyelashes, the pubes, axillary region, etc.

1. The alopecia of the eyebrows is tolerably frequent in woman, and I believe more so than in man.

Like alopecia of the scalp it appears in the two following aspects: Occasionally the eyebrow becomes thin throughout its whole extent; sometimes the hair falls in spots which become perfectly denuded, breaking the continuity of the hairy arch of the eyebrow.

Similar to alopecia of the scalp, these two forms of depilation are frequently associated together.

Alopecia of the eyebrows varies in its degrees. It is slight, medium, or intense. I have seen it *complete* in several women. And this case, the absence of the hair, gave to the physiognomy a strange aspect.

2. The fall of the eyelashes is much less frequent; it might even be said exceptional.

It is most frequently limited, partial, incomplete, save in certain cases in which ulcerative syphilides have ravaged the free border of the lids, as seen in the patient presented to you this morning. This woman, although old, has had syphilis recently, and owing to an ulcerative syphilide, which involved each follicle of the lashes, it is even probable that the lashes will never grow again, as the ulcerations appear to have been enough to destroy the follicle.

3. Although less common than cranial depilation, *genital alopecia* is nevertheless tolerably frequent. It is most frequently observed at the mons Veneris; it is more rare on the labia majora.

This form of alopecia is not one of the lightest vexations of

syphilis for women, judging at least by the attention they pay to it, and the anxiety it causes them.

If this lesion is slight it may pass unnoticed, for there exists a great inequality in different women in the hairy development of the genitals. But should it become marked, it shows itself immediately by a partial denudation of the mons Veneris, and the cutaneous surface of the labia majora. I have sometimes seen this alopecia *entirely* strip the vulva and the mons Veneris, which then has a glossy and whitish appearance.

4. Finally, in certain cases, the hair of the *axilla* may become affected. I only cite in order to record this variety of alopecia, which is rare, and besides does not present anything of special interest.

These various alopecias just described do not differ in any characteristics from cranial alopecia. Like the last, they belong to the secondary period of syphilis; like it, they also occasionally occur as sequelæ of local lesions, sometimes (and it is most usually the case) independently of any local phenomena which would account for the depilation; and, in short, they are only transitory, passing, and recover under the influence of time and of a mercurial medication.

[To be continued.]

Epitome of Current Literature

Cases of Erysipelas Ambulans vel Erraticum.—The two following cases came under the care of Dr. Saunders, of the Devon County Asylum, and are reported by the late Assistant Medical Officer, Dr. J. W. Burman:—

Case I.—No. in Register, 2,995; female, married, aged 59; admitted in 1865. In September, 1870, erysipelas commenced in the face, spread from thence to the scalp, thence down the back of the neck to the chest and arms, and gradually extended downward over the abdomen to the distal parts of the lower extremities. The eruption faded away, and was followed by desquamation in the order of its appearance, and finally disappeared at the feet where several small abscesses formed. The illness extended over five weeks, patient lying for some considerable time in a low typhoid state, and at times in an apparently hopeless condition; but by the free use of stimulants and nutrients a slow and tedious convalescence at last commenced, and eventuated in complete recovery. Strong nitrate of silver was applied on several occasions at the margin of the progressing erysipelatous blush, but without effect. The medical treatment was principally by perchloride of iron, chlorate of potash, and simple salines such as potus imperialis *ad lib.*

Case II.—No. in register, 3,049; male, single, aged 51; admitted in 1865. In February, 1871, he was attacked with erysipelas, which, commencing on the face and scalp, pursued a course very similar to that in Case I., differing, however, in the non-formation of abscesses in the feet, and in occurrence of general dropsy without albuminuria. His illness was prolonged for a period of two months, and his life was frequently despaired of, the typhoid condition being both more marked and persistent in this than the former case, and the patient remaining for many days with a dry glazed tongue, quick and weak pulse, and hot and dry skin. He was only "pulled through" by a lavish use of stimulants and concentrated nutrients. The medical treatment was the same as in Case I., with the exception of special treatment for the dropsy. With the subsidence of the eruption the dropsy gradually disappeared, and though

much reduced in weight, the patient ultimately made a good recovery; losing, however, a considerable quantity of hair from the scalp.

Remarks.—This very peculiar and dangerous form of erysipelas has been little more than mentioned as one of its varieties by most authors on surgery. The best accounts of it are given by Dr. Pirrie in his "Principles and Practice of Surgery," p. 82, and by Campbell de Morgan in Holmes's "System of Surgery;" but in each of these cases merely a short paragraph is dedicated to its consideration. So far as the writer can ascertain there are only two similar cases on record—viz., one by La Motte (Cooper's "Surgical Dictionary," article: Erysipelas), and the other by M. Vidal ("Médecine Opératoire"). Besides the general progressive nature of the disease it is peculiar on account of its very severe and prolonged constitutional symptoms, which are of a low type, and call for an eminently sustaining treatment. The local symptoms are not of much moment, though the whole thickness of the skin is involved; for the worst topical occurrences in the two cases above described were small abscesses in the foot of one, and small bullæ here and there on the skin of both as the disease progressed.—*The Lancet*, July 20, 1870.

Elephantiasis of the Left Lower Limb and of the Right Labium Externum.—M. Broca has under his care at the Hôpital La Pitié, a patient suffering from elephantiasis, and who is also affected with hydatid cyst of the liver. The case is of interest from the fact of its appearing in Europe. The skin is hard, horny, with a brownish hue and deep folds of the surface; the foot is quite characteristic of elephantiasis. The disease broke out in youth, about twenty years ago, and has since followed a gradual progress, attaining its present development without ever causing any obstacle to walking—*Ibid.*

The Sequelæ of Dengue.—Dr. Charles contributes the following account of sequelæ following the fever known as Dengue.—"When the secondary rash has been a prominent feature of the complaint, desquamation often follows. In most cases of dengue you will fail to find desquamation; but still, in many cases, it constitutes a sufficiently noteworthy occurrence. When it takes place it resembles very much the desquamation after an attack of measles; small bran-like scales separate, or the scurf may be much finer than this, and almost resemble white dust. At times the desquamation is very partial in extent, but you will sometimes find it extremely general. When it is so, and much desquamation takes place, the ap-

pearance it produces on the dark-skinned races is a very loathsome one, as the white fragments of cuticle are chiefly confined to the points at which the elements of the rash were situated, and the dark intervening skin gives rise to a remarkable contrast. Sometimes the amount of layers of cuticle shed is very considerable, and quite reminds one of pityriasis furfurans. When you rub such a skin in a strong sunlight you raise quite a little cloud of epidermic débris. Such an extreme form, however, is far from common. The scales are much finer than those usually separated after scarlatina. He has never seen any large flake or layer of skin separate; in fact, desquamation has been altogether insignificant in his experience when compared to what is frequent in scarlatina, and he has never met with any cases in which large continuous patches of the skin separated from the hands and feet, as one may see often enough to occur in scarlatina."

Dr. Charles believes that there is some resemblance between scarlatina and dengue, and he thinks that we are more fortunate now than our predecessors in being able to appeal to a single crucial, undeniable test, which, of itself, is sufficient to put the question at rest. Our clinical thermometers, if properly used, furnish the most unanswerable proof that dengue is not scarlatina. Give the history of any case of dengue, purposely dwell on the points of resemblance to scarlatina, and keep back all the evidence which goes against this view, and furnish along with it a temperature chart, and no one versed in medical thermometry will accept your diagnosis of scarlatina. It is difficult to compare things so utterly dissimilar as temperature charts of dengue with similar delineations of the temperature in scarlatina.—*Indian Medical Gazette*, May, 1872.

Parasitic Growths as a Cause of Disease.—In the July issue of this Journal we gave a résumé of an address on parasitic growths, by Dr. Olavide. The *Pabellon Medico*, in which Dr. Olavide's discourse appeared, contains in its recent numbers certain animadversions by Dr. Mariano Benarente on the parasitic theory of disease. We give here his principal objections to this theory:—

I. In alleging low vegetable organisms as causes of syphilis and gonorrhœa, Dr. Salisbury and Professor Hallier, unfortunately for the theory, ascribe the origin of these diseases to *different* growths. If these maladies have a cryptogamic genesis the species which generate and perpetuate them ought to be the same.

II. The extreme difficulty, if not impossibility, of isolating

the spores from accompanying organic matter renders any results from inoculation of a very doubtful character.

III. The mould of bread and the mould of straw are affirmed to be the specific causes of maladies like small-pox, carbuncle, typhus, measles, etc. It is worthy of note that these moulds must be almost omnipresent, and must be encountered in the human organism at any time.

IV. Dr. Olavide's strongest support seems to lie in the fact that *phytoparasitic affections increase, and can even be inoculated, in dead bodies.* There is no doubt that the parasites of Tineæ adhering to the hair-bulbs are nourished and grow after death, but this, even if it were true, in diseases like thrush, etc., would be rather unfavorable than otherwise to Dr. Olavide's theory. It would only prove that vegetable parasites find a congenial habitat in organic substances already undergoing change. Dr. Benarente would here distinguish between parasites and pseudo-parasites, the former requiring a certain congeniality and predisposition in the organism on which they fix themselves and live, the latter not. As an instance, the *oidium albicans* and *achorion* are parasites which live and grow only on certain and determinate subjects, while the *pseudo-parasites*, *muco-mucedi*, and *penicillum* fix and evolve themselves in any point where there are organic substances in decomposition. Keeping this in mind, there will be little danger of confounding the vegetable parasites characteristic of this or that affection with those cryptogams or pseudo-parasites which are frequently met with in the saliva, mucous pus, and on the greater part of ulcerated surfaces, whence Dr. Benarente would conclude that the spores or particular growths which are discovered by the microscope in many preparations of pathological tissues and humors, are no more than an accidental phenomenon, or a mere coincidence, depending on the facility with which some of the infinite cryptogams floating constantly in the air can fix themselves in the solids or liquids of the human body.—*The Doctor*, August 1, 1872.

Examples of Favus in a Canary, and Scabies in a Cat.—Dr. John Wilson reports an example of favus in a canary, as also of scabies occurring in the cat. We have read of a similar disease attacking the feathers of a parrot. The crusts, examined by Dr. Wilson, taken from the head of the bird, were brittle, of a yellowish white or cream color, and there was a fine dry dust over part of their surface. The affection had first shown itself at the root of the beak, and gradually extended backwards. It caused the bird to be very frequently scratching

itself with its foot, and tearing off the incrustations, which soon reappear over the denuded surfaces. The lady to whom the canary belonged had been told by a bird merchant that the disease was very difficult to cure, and was usually called by them cancer. Dr. Wilson, having broken up a portion of the crust, and moistened it with slightly diluted liquor potassæ, examined it microscopically at 400 diameters, and found the characteristics of favus,—the mycelium tubes, spore tubes, and spores of the achorion Schœnleinii, and a few very young feathers which had become embedded in the crust. The canary has since died, and unfortunately has not been preserved.

It is not unlikely that the disease was communicated through the seed, among which the bird required so often to burrow its beak; and the seed was probably infected by mice, animals among which favus seems to be indigenous, and which are very fond of canary-seed. Bazin relates that several mice caught in a trap had favus; they were given to a cat, which took the disease, and two children playing with the cat became affected. The late Dr. Andrew Buchanan, Jun., detected favus in a dog that had been in the habit of killing mice. Several mice were caught and examined by him and Dr. M'Call Anderson, and found to have undoubted favus. Müller has detected it on the Cochin China fowl and several chickens. Gerlach has effected its transmission from fowls to man, and Köbner has produced favus in rabbits by inoculating them from man.

Dr. Wilson examined three cats; they were found to be suffering from scabies. He says the sarcoptes of the dog, horse, and sheep, as figured and described by Küchenmeister, are all very different from the human itch insect, and that of the cat; and it would appear that though any variety may be transferred to man, and may produce and maintain the disease for a time by oft-repeated contact, yet those only that most closely resemble the human acarus can pass through their whole development in man. The general term *mange* is popularly applied in this country to any affection among the lower animals where there is scratching and scabs, and baldness; but it is not, he thinks, generally suspected that the cutaneous galleries are often, at least, full of teeming insect tribes. The French term *gale* corresponds equally to our words *mange* and *itch*.—*Glasgow Medical Journal*, May, 1872.

Rotheln, or German Measles.—Dr. Heggie contributes the following on an Epidemic of Rôtheln, the prodromata of which are, in the majority of instances, insignificant. The first symptom is the eruption, and this makes its appearance, almost

invariably, beneath the eyelids, afterwards extending rapidly over the whole surface of the body, but occasionally confines itself merely to the face, with a few spots perhaps on the wrist. Synchronous with the eruption beneath the eyelids there is a swelling between the eyes, and, in half the cases, injection of the conjunctiva. Pyrexia is notably absent, and although in some cases there is arterial excitement, this appears merely fortuitous, and like the sore throat, nausea, urticaria, etc., which we sometimes meet with in cases of Rôtheln, not a symptom of Rôtheln, but indicating a condition of the system which would have manifested itself independent of the epidemic, or perhaps a complication arising from the presence of another epidemic, such as influenza. One symptom, however, is nearly constant, viz., giddiness, and is almost the only constitutional symptom in the disease.

Although the exanthema is said "to differ in no respect from that of morbilli," Dr. Heggie affirms that the rash is papulous, larger, more un-uniform, and of a darker color. It is very irregular in its distribution, causes considerable itching, and disappears at the end of the first or, at the most, the second day of the disease. There are no sequelæ to this disease. Vogel remarks that this disease is "not immediately preceded nor soon followed by any epidemic of measles or scarlatina."—*Canada Lancet*, May, 1872.

On Catarrh of the Bladder.—Dr. Kraus regards it as very curious that the urethra is so seldom affected by the quantity of pus which passes through it from the bladder, whilst, as before mentioned, the bladder so easily becomes affected in gonorrhœa. The meaning of this seems to reside in the following consideration. The mucous membrane of the urethra, excepting the prostatic part of it, is, if it is often altered by gonorrhœal processes, no longer sensitive to pus mingled with urine, which remains such a short time in contact with it, whilst the mucus and pus lodge in the prostatic part of the urethra often many hours, when the tonicity of the bladder is weakened, between each period of micturition, so that the contact with the walls of the prostatic portion of the urethra is very intimate and likely to cause infection. In the fossa navicularis at the external end of the mucous membrane of the urethra, where some portions of mucus occasionally are wont to delay, we sometimes find slight catarrhal collections, and the closure of the urethral orifice in patients with catarrh of the bladder is attributable to such collections of pus.—*All. Wien. Med. Zeit.*, June, 1872.

Atrophy of the Papilla of the Optic Nerve.—Dr. Galezowski (*J. d' Ophthal.*, January) says that in traumatic atrophy, if vision be not lost immediately from the accident, we may employ derivatives for some months. If vision have been absent for some years, the effect of the continuous current may be tried. Syphilitic atrophy of the papilla is very grave, and generally no internal treatment can arrest it. In two cases only has he seen this affected by mercurial friction. As to iodide of potassium, which is usually prescribed, it generally is without efficacy. In cases resulting from intermittent fever we must combat the disease by anti-periodics, and recommend change of climate. In atrophy caused by alcoholic intoxication, a severe *régime* should be prescribed, consisting in complete abstention from the use of coffee, alcohol, and liqueurs. Preparations of bromide of potassium, calabar bean, or opium, may be usefully prescribed.—*The Doctor*, August, 1872.

The Cause of Pellagra.—Dr. Lussacra tries to establish the innocuity of the mushroom, *sporisorium moydis*, which is said to be the cause of pellagra. North Italy alone has more than 60,000 cases of this disease, and the annual mortality of them is about one-tenth. Since 1854 the professor has made experiments with the mushroom made into powder upon dogs and birds, and the results have all been negative. Since these attempts the author has sought in vain in Lombardy and in Venetia for grains of the maize affected with this parasite; and yet these are the most favorite localities for the disease. He also remarks that the "verdet" is very rare in countries where the disease is endemic, and appears among persons who never eat maize. He has also examined what might be the influence of some other alterations of the grains of maize, such as the charbus (uredo), the serratia, or the penicillum glaucum, and finally of the ergot of maize (*sclerotium moydis*) which is the analogue of the ergot of rye. All these parasites are, he thinks, without appreciable influence on animals or men subjected to their influence, whether entering by the intestine or by the blood or lungs. On what then does this terrible disease, which continues the whole lifetime of the patient, depend?—*Gazz. M. Ital. Provinc. Ven. The Doctor*, August, 1872.

Syphilitic Sore on the Female Nipple.—Mr. Andrew Clarke, of the Middlesex Hospital, reports the following case as an addition to our knowledge of this form of syphilitic infection. M. A. S., aged 32, came as an out-patient to Mr. Clarke in November last, with a sore, which had all the appear-

ance of a chancre, on the left nipple. There was also an enlarged and tender gland in the axilla. The patient had always been a healthy woman, and her husband also was quite healthy; she remembered, however, putting a neighbor's child with a sore on its mouth to her breast about four months before, and, according to her own account, the sore formed two or three months afterwards. She was ordered to take perchloride of mercury, and to have black-wash applied to the chancre. In three weeks she was quite well, and ceased attending the hospital of her own accord.

On December 31 she again attended, when she had a well-marked syphilitic rash and the signs of secondary syphilis. She was again put under syphilitic treatment, and rapidly improved.—*The Lancet*, August 2, 1872.

Case of Hereditary Syphilis: Epileptic Fits: Double Optic Neuritis.—Dr. Jonathan Hutchinson, Surgeon of the London Hospital, reports the following cases:—Hannah T., aged twenty-two, married, was admitted on January 22, 1872. She was pale; had a broad bridge to her nose, but no characteristic depression; the upper central incisors widely separated from one another, and presented the syphilitic teeth of the screw-driver type. She was drowsy, and answered questions slowly. Her memory was very defective. She was quite blind with the right eye, and nearly so with the left, being only able to count fingers with it at a distance of three feet.

Ophthalmoscopic Examination.—There was well-marked neuritis in each eye, with abundant white opaque lymph, and much swelling of the discs. The lymph was somewhat abruptly limited, and it wanted the uniform yellowish tint of recent neuritis; this color being mixed with numerous bright white dots and patches, not unlike those seen in the retina in cases of renal retinitis. There was no disease of any other part of the fundus.

Previous History.—Between the ages of fourteen and twenty-one, she had large abscesses, which had left extensive supple scars on the front of the lower part of the neck, over the spine of the left scapula, and at the left inner canthus. The scapular scar was adherent to the bone; and she said that "they used to probe it and drag stuff out of it." When she had these "abscesses," she also had painful swellings "on the bones" at the back of each fore-arm; they lasted several weeks, and it was expected they would break. After recovery from these nodes, she had good health, until about twelve months before admission. At that time, when she was six months gone with child,

she had a fit, during which she lost consciousness, fell, and struggled. She has since then had numerous fits, and has bitten her tongue in some of them. Her sight began to fail soon after the occurrence of the first fit. The fits are always preceded and followed by very severe headache, which is often accompanied by vomiting. The headache is frontal, and generally comes on in the morning. She describes it as most severe —"a gnawing, beating pain;" sometimes it is so bad as to prevent her from recognizing any one about her. It seems to culminate in a fit, and afterward it passes off. She has never had rheumatic or scarlet fever, and there is no history of dropsy in the patient. Her urine has been examined since admission, and contains neither albumen nor casts. She says that in the fits her face is drawn to the left side.

Family History.—No history of acquired syphilis. Her mother has been married twice, and had eleven children (all born alive) by the first husband: she has had none by the second husband. She is not aware of having had any venereal disease from the first husband, and denies having ever had any symptoms of syphilis. She has had no miscarriages. Five of her eleven children died at about three months of age, and one at about thirteen years; five are living. The two eldest died in infancy; the third is a married woman, aged twenty-four, who, in girlhood, had inflamed eyes (? keratitis) for a considerable time. The fourth is the patient. The mother says that many of the children had snuffles, but none any skin-rash. The child who died at thirteen years of age also had inflamed eyes for twelve months several years before death: she died of "enlarged liver and dropsy." The two youngest are living, and are aged twelve and ten years respectively. Their physiognomies are suspicious of inherited syphilis, but not conclusive.—*British Medical Journal*, Feb. 10, 1872.

Acute Atrophy of the Liver as a Complication of the Inception of Secondary Syphilis.—Mr. H. F. A. Goodridge reports the following interesting case: A young man aged 20, in a perfect state of health, free from alcoholic antecedents, contracted syphilis three months prior to his admission to the hospital; presented himself with a marked icterus, which had manifested itself four days previously, coincident with a roseola of the body, and specific lesions of the mouth.

He died twelve days after the inception of the icterus, which was accompanied with symptoms of fever and cerebral congestion, which persisted notwithstanding the administration of powerful intestinal derivatives.

The autopsy revealed congestion of the brain and kidneys, also a marked atrophy of the liver, the cellular structure of which was altered by fatty granulations in the left lobe, and in a small portion of the right lobe, whilst the other portions were congested; the biliary ducts free in their entire extent; the fibrous structure was only hypertrophied in the vicinity of the longitudinal ligament. So marked and so acute an alteration of the structure of the liver, induced by secondary syphilis at its inception, is exceedingly rare.—*British Med. Jour.*

Two Cases of Tricoptilose.—Dr. Luigi Billi related the history of two cases of this disease, a full description of which was given in an interesting note of M. A. Devergie's in the July issue of this Journal, at the 26th of May meeting of the Medico-Physical Society of Florence. He fully agrees with M. Devergie as to the non-parasitic nature of the disease, an opinion which is confirmed by the eminent Prof. Michelacchi. He advised the use of turpeth mineral, pomatum, and astringent and stimulant lotions; also to facilitate the treatment advised the *cutting short of the hair*, the latter of which is, *notatu dignum*, the treatment suggested by Devergie.—*Giornale Italiano Delle Malattie Veneree Delle Malattie Della Pelle.* Milan, August, 1872.

Constitutional Syphilis—Its Relations to Mental Diseases.—This question has been frequently studied and spoken of; recently renewed attention has been given to it, owing to the progress made in the investigations of the pathology of the mind, by the clinical and pathological study of encephalic syphilis.

Although syphilitic mental affections present themselves under two forms, congenital intellectual weakness, and acquired mental disease, it is only of the latter which Dr. Wille, physician in chief to the asylum of Rheinau, Zurich, treats in his interesting memoirs.

According to the doctor, in from 2 to 2½ per cent. of the patients, syphilis is met with as a cause of mental derangement; although it is probable that the proportion is much greater, and it is desirable that accurate statistics should be gathered from a large number of asylums, in order to obtain reliable figures.

Dr. Wille's observations include 77 cases, 11 of which were personal to him.

The most frequent symptom of syphilitic alienation is a progressive dementia, accompanied with a marked loss of memory, but without any idea of power or riches; this condition is ordinarily preceded by a prodroma of melancholico-hypochondriac depression.

Acute syphilitic alienation can assume all the known forms of mental diseases, and depression frequently alternates with the intellectual weakness heretofore alluded to. There are almost always symptoms of physical cerebral disorders, such as paralysis or hyperæsthesia of one or another cranial nerve, hemiplegia, phenomena of irritation, muscular tremor, convulsions, etc.; cephalalgia is also characteristic of it.

Syphilitic alienation may declare itself *immediately* after infection; but it is also frequently preceded by epileptico-apoplectiform attacks, subsequently developing itself insensibly; occasionally, under the form of mania, or acute melancholy, or of acute delirium; but these cases are exceedingly rare, for, as heretofore stated, the affection develops itself most frequently insidiously, and by a chronic progress, under the form of progressive dementia.

Syphilitic insanity is divisible into three principal groups:—

1st. The simple irritative forms.

2d. The forms with general mental disorder.

3d. The forms, with symptoms of organic circumscribed alterations of the encephalon.

The first of these is generally due to an anæmic condition of the brain; the second to alterations in the meninges and to a general softening of the encephalon; whilst in the third there are circumscribed lesions, such as partial inflammatory softening, with a diseased condition of the arteries, atheroma, thromboses, and the gummy neoplasms which appear to be the most frequent ones. The autopsies occasionally entirely fail to explain the troubles observed during life, even in cases in which the most serious cerebral symptoms manifested themselves.

The diagnosis of syphilitic alienation is based on anæmosis, or the concomitant symptoms of constitutional syphilis, the physical and psychical symptomatology, but frequently only a comparative diagnosis can be made. The accuracy of the diagnosis becomes almost if not positive when an anti-syphilitic treatment causes the mental disorders to disappear, or else when a progressive paralysis with dementia is positively detected in a subject, aged 20, more or less.

The prognosis is always favorable when the psychose is primary and without complications; in cases in which there are convulsions, localized paralysis, it is doubtful; and in those in which symptoms of progressive paralysis have already manifested themselves it is very serious.

The treatment should be at first a mild anti-syphilitic one; if the iodide of potassium and mild mercurials are insufficient, recourse must be had to mercurial inunctions. A tonic and strengthening diet is always indicated.

Dr. Wille ends by opposing in the most peremptory manner the theory which makes of syphilitic psychose and the progressive paralysis of the insane, *one and the same disease*, basing his assertion on etiological, symptomatological, and anatomical considerations.—*Annales Medico-psychologiques*, Jan. 1872.

Insanity Dependent upon Constitutional Syphilis.—Dr. Strethill H. Wright, Senior Assistant at the Royal Edinburgh Asylum (Morningside), contributes an interesting paper, based upon an analysis of four cases, three of which were personal to him; in all of which the symptoms of mental disorder arose as effects from and were closely connected throughout their progress with a coexistent constitutional syphilitic affection, and yet they differed in their gravity and amenability to treatment.

He considers that they exemplify—1st, a very acute form of syphilitic insanity; 2d, a very chronic form, with occasional exacerbations in the severity of the symptoms; and 3d, a chronic variety, when the mental symptoms chiefly though not entirely depended upon very grave organic change of the nervous centres, leading to an inevitably fatal issue.

The first case was remarkable in its acute character, the mental disorder was very sudden in its invasion, and accompanied with a highly feverish condition of the system generally. The head symptoms bore a very marked relation to the presence of the syphilitic eruption. They abated as it faded.

A feature of special interest was the occurrence and nature of the epileptic fits. Although it was evident that they were not due in this case to the presence of nodes or morbid intercerebral changes, as the patient had for some time given the rein to his sexual inclinations the doctor coincides with Van der Kolk, that they were due to "an exalted sensibility and excitability of the medulla oblongata." The convulsive attacks *followed* the paroxysms of mental excitement. He therefore submits that probably the general excitement was produced first by the stimulation of a brain rendered susceptible by constitutional disease; and that subsequently a further and special manifestation was made by that part of it which had been rendered specially sensitive through the prolonged action of a special irritating cause, *i.e.*, frequent and prolonged sexual excitement.

The patient finally recovered, notwithstanding several relapses, under the administration of iodide and bromide of potassium, and general hygienic means.

The second and third cases are considered as excellent

examples of chronic insanity dependent upon a persistent syphilitic condition of the constitution. The second is one more characteristic of "Dementia," intermitting and not constant, leaving him for days, even hours, to all appearances sane. Whilst the third, although intermitting in severity, is never absent. *When excited* he entertained delusions of an erotic as well as of a more general nature.

Again in these cases the relation between the syphilitic affection and the display of mental symptoms is of the most direct nature. Both require to be kept well.

When "let alone" both become rapidly insane; but both rapidly recovered their equanimity, under the administration of iodide of potassium and other suitable remedies. The second was occasionally treated with alterative doses of mercury. They both had become, so to speak, syphilized, but when properly combated they regained altogether or in a measure their equanimity.

He refers to an interesting case reported by Mr. Coulson, surgeon to the York Hospital, as a parallel instance of this syphilized condition in which the patient always required "to be kept well."

Completing the series by referring to a case of Dr. Williams, in which the very grave symptoms depended upon an organic intercerebral change, she had marked evidences of secondary and tertiary syphilis, she was melancholic and apathetic at first, easily roused, but subsequently became affected with severe headache, vertigo, and drumming of the ears, and had several epileptic seizures, finally died comatose; the autopsy revealed organic cerebral changes evidently due to a syphilitic cachexia.

In conclusion he submits that the foregoing cases show:—

How the impairment of the general constitutional stability by syphilis, as by any other disease, may produce such a state of mental incompetence as to occasion insane manifestations.

That it is of the greatest importance to distinctly diagnose the true cause of the insanity, in order that an availing method of treatment may be resorted to.

That the patient's natural disposition, and the special nature of the exciting cause, exercise a determining and suggestive influence as to the form of insane manifestations displayed by him.

And finally, that in those cases where the bodily disorder is acute and the constitution not too severely affected, a complete recovery is to be hoped for on the disappearance of the syphilitic disease; while in many chronic cases, such as the second and

third of the series, where such a result cannot be hoped for, a comparative immunity may be procured for the patient from his more distressing mental symptoms by judicious treatment; but to this end a constant medical supervision is necessary.

In cases such as the last of the series, hopeless as they may be in regard to a re-establishment of the mental powers when great structural changes have occurred, much may be done to ameliorate the patient's condition and mitigate his sufferings.—*Edinburgh Medical Journal*, June, 1872.

Therapeutical Notes.

Ichthyosis treated by Ointment of Sulphate of Copper.—M. A. Lallier relates the case of a man aged 72, a patient in an asylum, under the care of M. Dumesnil, suffering from dementia, who was attacked with ichthyosis of the nose and face. Various remedies—ointments of *huile de cade*, of sulphur, white precipitate and other mercurial preparations, arsenic given internally, etc., were used without success. An ointment of four parts of sulphate of copper in thirty parts of benzoated lard was then prescribed. Under its use the cutaneous affection disappeared in about three weeks. It returned, however, a month later, and was again removed by the same remedy, which this time was persisted in, with the result of rendering the patient free from the disease up to the date of the report—nearly two years after the remedy was first applied.—*Journal de Médecine de Bruxelles*, May, 1872.

The Use of Iodoform Ointment in the Treatment of Onychia and Many Forms of Skin-Disease.—M. Tillaux, of the Hôpital St. Louis, uses in the treatment of onychia, whether syphilitic or otherwise, an ointment composed of Iodoform ʒ j.; Ung. simplicis, ʒ j. A few applications, it is claimed, will, at times, cure cases that have resisted all other remedies. This ointment is also recommended in some of the more inveterate forms of skin-diseases—such as lepra, psoriasis, chronic eczema, etc.—and has been found useful as a local anæsthetic for the relief of pain, whatsoever its origin, and in all forms of neuralgia. In this latter affection iodoform has been administered internally in two-grain doses three times a day, and with great success, especially when combined with iron.—*Paris Correspondence Medical Times and Gazette*, July 27, 1872.

On the Treatment of Acne Punctata by the Internal Use of Glycerine.—M. Gubler, at the Hôpital Beaujon, has had under his care a young girl, about 16, suffering from rheumatism. She was also the subject of acne punctata, which had resisted the usual means employed in such cases. M. Gubler, recalling to mind the analogy that exists between the therapeutic action of glycerine and oils, was induced to try the former, and administered it in this case in doses of a tablespoonful morning and evening, and in the course of a few days

the acnoid spots had all but disappeared, and the patient, being well of her rheumatism, left the hospital delighted with the double cure. M. Gubler's theory of the treatment was that glycerine, being a solvent of the sebaceous matter contained in the pimples, rendered it more fluid, and consequently more easy to be eliminated. Arguing from this, he thought advantage might be taken of this solvent property of glycerine for the removal or softening of the cerumen which sometimes accumulates to such an extent in the ear as to cause a certain degree of deafness. And, lastly, M. Gubler said that glycerine was a most useful therapeutic agent, and ought to be more generally employed in medicine. It is invaluable in constipation, and he preferred it to the more nauseous and irritating substances administered in such cases.—*Paris Correspondence Medical Times and Gazette*, July 27, 1872.

Treatment of Syphilis by Means of Hypodermic Injections of Corrosive Sublimate in the Form of a Chloro-Albuminous Solution.—Dr. Staub, of Paris, has published, under the above head, the results of a most interesting series of experiments. The object of Dr. Staub was to avoid the local accidents caused by hypodermic injections of sublimate, and also to be able to employ stronger doses. This he effected by means of an albuminous solution of sublimate in alkaline chlorides, according to the principles laid down by Gubler, Mialhe, Barensprung, etc. The formula for injection deserves to be carefully noted: Sublimate and chloride of ammonia, of each 20 grains; chloride of sodium, about 62 grains; distilled water, 20 grains. After filtration the whole is mixed up with an albuminous solution (white of an egg, water 4[1] drachms). This mixture produces no local inconvenience; it contains 5 milligrammes (about $\frac{1}{13}$ grain) to every 20 drops. The results of treatment, states Dr. Staub, have been very favorable. In the 44 cases related the duration of treatment varied from seventeen to thirty-four days, with one centigramme ($\frac{1}{6}$ grain) of sublimate injected each day. The author comes to the conclusion that the hypodermic method, with the chloro-albuminous solution of sublimate, can and ought to be transformed into a general mode of treatment of syphilis; that it will take the first place in the therapeutics of syphilis; and that it may be applied to all cases (syphilitic or not) where a mercurial treatment is indicated.—*The Lancet*, July 20, 1872.

Extractum Asplenii.—This is a powerful bitter tonic and antiperiodic, possessing many of the virtues and properties of quinine. In cases, therefore, in which that remedy fails, or is

itself with its foot, and tearing off the incrustations, which soon reappear over the denuded surfaces. The lady to whom the canary belonged had been told by a bird merchant that the disease was very difficult to cure, and was usually called by them cancer. Dr. Wilson, having broken up a portion of the crust, and moistened it with slightly diluted liquor potassæ, examined it microscopically at 400 diameters, and found the characteristics of favus,—the mycelium tubes, spore tubes, and spores of the achorion Schœnleinii, and a few very young feathers which had become embedded in the crust. The canary has since died, and unfortunately has not been preserved.

It is not unlikely that the disease was communicated through the seed, among which the bird required so often to burrow its beak; and the seed was probably infected by mice, animals among which favus seems to be indigenous, and which are very fond of canary-seed. Bazin relates that several mice caught in a trap had favus; they were given to a cat, which took the disease, and two children playing with the cat became affected. The late Dr. Andrew Buchanan, Jun., detected favus in a dog that had been in the habit of killing mice. Several mice were caught and examined by him and Dr. M'Call Anderson, and found to have undoubted favus. Müller has detected it on the Cochin China fowl and several chickens. Gerlach has effected its transmission from fowls to man, and Köbner has produced favus in rabbits by inoculating them from man.

Dr. Wilson examined three cats; they were found to be suffering from scabies. He says the sarcoptes of the dog, horse, and sheep, as figured and described by Küchenmeister, are all very different from the human itch insect, and that of the cat; and it would appear that though any variety may be transferred to man, and may produce and maintain the disease for a time by oft-repeated contact, yet those only that most closely resemble the human acarus can pass through their whole development in man. The general term *mange* is popularly applied in this country to any affection among the lower animals where there is scratching and scabs, and baldness; but it is not, he thinks, generally suspected that the cutaneous galleries are often, at least, full of teeming insect tribes. The French term *gale* corresponds equally to our words *mange* and *itch*.—*Glasgow Medical Journal*, May, 1872.

Rotheln, or German Measles.—Dr. Heggie contributes the following on an Epidemic of Rôtheln, the prodromata of which are, in the majority of instances, insignificant. The first symptom is the eruption, and this makes its appearance, almost

invariably, beneath the eyelids, afterwards extending rapidly over the whole surface of the body, but occasionally confines itself merely to the face, with a few spots perhaps on the wrist. Synchronous with the eruption beneath the eyelids there is a swelling between the eyes, and, in half the cases, injection of the conjunctiva. Pyrexia is notably absent, and although in some cases there is arterial excitement, this appears merely fortuitous, and like the sore throat, nausea, urticaria, etc., which we sometimes meet with in cases of Rôtheln, not a symptom of Rôtheln, but indicating a condition of the system which would have manifested itself independent of the epidemic, or perhaps a complication arising from the presence of another epidemic, such as influenza. One symptom, however, is nearly constant, viz., giddiness, and is almost the only constitutional symptom in the disease.

Although the exanthema is said "to differ in no respect from that of morbilli," Dr. Heggie affirms that the rash is papulous, larger, more un-uniform, and of a darker color. It is very irregular in its distribution, causes considerable itching, and disappears at the end of the first or, at the most, the second day of the disease. There are no sequelæ to this disease. Vogel remarks that this disease is "not immediately preceded nor soon followed by any epidemic of measles or scarlatina."—*Canada Lancet*, May, 1872.

On Catarrh of the Bladder.—Dr. Kraus regards it as very curious that the urethra is so seldom affected by the quantity of pus which passes through it from the bladder, whilst, as before mentioned, the bladder so easily becomes affected in gonorrhœa. The meaning of this seems to reside in the following consideration. The mucous membrane of the urethra, excepting the prostatic part of it, is, if it is often altered by gonorrhœal processes, no longer sensitive to pus mingled with urine, which remains such a short time in contact with it, whilst the mucus and pus lodge in the prostatic part of the urethra often many hours, when the tonicity of the bladder is weakened, between each period of micturition, so that the contact with the walls of the prostatic portion of the urethra is very intimate and likely to cause infection. In the fossa navicularis at the external end of the mucous membrane of the urethra, where some portions of mucus occasionally are wont to delay, we sometimes find slight catarrhal collections, and the closure of the urethral orifice in patients with catarrh of the bladder is attributable to such collections of pus.—*All. Wien. Med. Zeit.*, June, 1872.

pip. aug., ♏ v.; Chloroform *fluid*, ʒ vj.; Acid. hydrocyan. Schl., ♏ xviij.; Æther. sulph. rect., ʒ j.; Treacle *fluid*, ℥ iss.; Ext. glyc. *mollis*, ʒ j.; Aq. ad fl. ℥ iij. M.

On the Therapeutic Actions and Uses of Turpentine.—Dr. Warburton Begbie described oil of turpentine as being irritant and stimulant, quickening the circulation and augmenting the temperature of the body. In larger doses it produces a sort of intoxication; in drachm doses it is hypnotic. Externally it is a valuable rubefacient, and is absorbed by the skin so as very soon to be recognized in the breath, and by its characteristic violaceous odor in the urine. The production of this violaceous odor in its perfection seems to be a test of the integrity of the urinary organs, as it is less marked or absent in disease of the kidneys. The therapeutic actions and uses of turpentine are various: 1. As a cathartic it is uncertain, but along with castor-oil it is useful in cases of obstinate obstruction and tympanitis. 2. As an anthelmintic it is chiefly used as a cure for tapeworm; also in the form of enema it destroys ascarides and lumbrici. 3. Though turpentine sometimes causes hæmaturia, it cures certain passive hæmorrhages. It is useful in purpura, probably acting through the nervous system; and is useful also in hæmoptysis, hæmaturia, and uterine hæmorrhages. 4. As a stimulant, it is especially valuable in adynamic fevers; as in the stupor of typhus, in certain kinds of delirium, and in the later stages of enteric fever with a dry tongue. 5. In certain nervous diseases, such as epilepsy and chorea, it is said to be very useful; but in epilepsy it is supplanted by bromide of potassium, and in chorea by arsenic. In certain forms of sciatica and crural or brachial neuralgia in the aged, twenty minim doses thrice daily have a very good effect. In the nervous headache of delicate females, and the headache which is induced by fatigue, it is a better stimulant even than strong tea, and without the effect which tea so often has of banishing sleep. 6. In all chronic discharges from mucous membranes, such as chronic and fetid bronchitis, it is very useful, and even is advantageous in gangrene of the lung in checking the fœtor. Under this head some interesting cases were given of gangrene of lung depending on the presence of foreign bodies.—*Transactions of Medico-chirurgical Society of Edinburgh.*

The Pathology and Treatment of Acne.—Mr. J. L. Milton, Surgeon to St. John's Hospital for Diseases of the Skin, London, thinks that this disease may be reduced to three classes:—1. Acne punctata. 2. Acne simplex. 3. Acne rosacea. After

describing their pathology and clinical history, causation, etc., denying that Acne is caused by Spermatorrhœa, having observed but one case of Rosacea, and not more than thirteen of Acne, only two of which were severe, out of nearly two thousand cases of Spermatorrhœa which came under his observation, he suggests the following division of the treatment: 1. Preparatory treatment, especially called for when the tongue is foul, the health out of order, and the bowels constipated. 2. Treatment devoted to the restoration of the strength and nutrition. 3. A course of remedies directed towards the absorption of the material deposited in the indurated parts. 4. Remedies calculated to act peculiarly on the skin. Under the first he advises aperients, salines, with or without selters, etc. Second, course of steel, etc. Third, the alkaline treatment, etc. Fourth, arsenic in the form of Fowler's solution. He has not much faith in local applications; but occasionally prescribes the hyperchloride of mercury in ointment and a lotion of bismuth and borax. If the hypochloride loses its effect, he makes use of the biniodide. Does not consider arsenic necessary in Acne Rosacea, as it will generally yield to salines and course of steel. In conclusion, beyond avoiding such articles of food as goose, pork, curry, etc., and the shunning of beer of every kind, and coarse spirits, he sees no reason for recommending any particular diet.—*Edinburgh Med. Jour.*, July, 1872.

Therapeutic Actions of Muriate of Lime.—Dr. Warburton Begbie, in an able memoir read before the Medico-Chirurgical Society of Edinburgh, after alluding to Cazenave's use of it in Lupus, says: This much I am able to affirm, that its alterative powers in certain cases of cutaneous eruptions intimately connected with syphilis, more especially lupus exedens and non-exedens, and in local psoriasis, also in some instances of ozæna and chronic tonsillitis, have appeared to me quite unmistakable. The dose is from 10 to 20 grains in solution.—*Edinburgh Med. Jour.*, July, 1872.

On the Treatment of Hereditary Syphilis.—Prof. Steiner, of Prague, gives the results of his experience in the treatment of hereditary syphilis in the Francis Joseph Hospital. For the purposes of comparison he divided his patients into three classes: the first of which he treated with mercurials, the second with preparations of iodine, and the third was submitted to the expectant treatment; the children treated by mercury and iodine were from one to six months old, while those treated by the expectant plan were above six months. The syphilis in these children manifested itself in lesions of the skin, mucous mem-

branes, bones and viscera. Dr. S. thinks that the disease was, in most cases, transmitted by the father, and was severe in the child in proportion to its severity in the father. The results of Dr. Steiner's experience were decidedly in favor of the value of mercury, and he speaks of the rapidity with which severe syphilides disappeared not only in well-nourished, but also in emaciated children. He found that mercury had no effect upon the syphilis of children prematurely born, or upon those whose syphilitic lesions were visible at birth, but that it was beneficial to children born at term, to those who had not marasmus, and to those whose lesions developed from three to six weeks after birth. Steiner says that although mercury has an undoubted action upon the lesions of syphilis, it is powerless in preventing relapses which may occur after weeks, months, and even years; and that, if they do occur, they almost never involve the skin which is always involved at first, but attack principally mucous membranes, periosteum, bones, or viscera. Though he admits this defect in the action of mercury, he thinks its power in removing lesions which might compromise life fully counterbalances it. As regards the question as to whether mercury is contraindicated in emaciated and debilitated children, he thinks that it is fully as beneficial to them as to the strong and well-nourished; for hereditary syphilis is observed in both of these classes of cases. He thinks that the view that mercury causes gastro-intestinal disturbance is merely theoretical, but that if intestinal catarrhs exist, they are benefited by it. He recommends great care in its administration, so that poisonous effects may not be produced. As to the particular preparation he prefers calomel, which he gives in doses of $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{2}$ of a grain three or four times a day, and if there is any anæmia he combines it with the saccharated carbonate of iron, and if colic and sleeplessness coexist, he adds Dover's powder or laudanum. He also uses calomel locally in condylomata, ulcers, fissures, and pustular syphilides. He says that his experience with the subcutaneous injections of corrosive sublimate is limited to two cases, in each of which he observed severe ulceration in using doses of $\frac{1}{24}$ and $\frac{1}{32}$ of a grain. He does not, however, express a decided opinion as to the merits of the treatment. As to the inunction cure, he thinks that although it is sometimes useful, it does not offer any especial advantages, and that it should be reserved for exceptional cases, and the same may be said of corrosive-sublimate baths. All things considered, he thinks that mercury cures hereditary syphilis in the most rapid and safest manner, and that its greatest action is exerted upon lesions of the skin.

Next in importance in treatment are preparations of iodine, which Steiner thinks act very much more slowly than mercury, and that they are particularly beneficial in lesions of the periosteum, bones, and viscera. He thinks it is equally as powerless as mercury in preventing relapses, and he is unable to say whether they occur earlier or later; more frequently or more rarely than after the exhibition of mercury. He has observed that some children are more tolerant of iodine than others, but that its long-continued use is deleterious, as it disturbs nutrition. As regards the symptoms of iodism, he has observed disturbances of digestion, catarrh of nasal mucous membrane, angina, headache, trembling, increased temperature, and in rare cases an erythema which is sometimes so extensive that an inexperienced person might mistake it for scarlatina. Such symptoms indicate a discontinuance of the treatment. Steiner usually combines the iodine preparations, giving preference to the iodide of potassium, in cases of anæmia, with the decoction or extract of bark, and sometimes with the syrup of the iodide of iron. In cases of extensive syphilides he used warm baths, and local affections were treated with tincture of iodine and solution of nitrate of silver, and gargles of chlorate of potassa and alum were used for the throat and mouth. Steiner's experience in the expectant treatment convinced him that it was much inferior in its results to mercurial or iodine treatment. Under it, syphilides remained obstinate for weeks and months, the affections of mucous membranes were very persistent, while the lesions of the bones and periosteum assumed very destructive characters. The progress in these cases was so slow, that his patients were either taken from his charge, or he was obliged to resort to a more active treatment in consequence of some important organ being affected, or of life itself being endangered. In coryza especially he found this treatment very dangerous. He thinks that this treatment may be followed in well-nourished children, especially if they are above six months old. As regards the propriety of putting a syphilitic child to the breast of a healthy wet-nurse, he expresses himself with great caution. He concurs with the views of Grassé in considering this action improper and unwarrantable, but he says he has been forced in some cases to do it as the only means of preserving the child's life. In these cases he invariably informed the nurse distinctly of the dangers she ran and left it to her option; in thus doing he thinks he discharged his duty as a man and as a physician.—*Journal für Kinderheilkunde.*

About Books.

A System of Surgery; Pathological, Diagnostic, Therapeutic, and Operative. By Samuel D. Gross, M.D., LL.D., D.C.L. Oxon., etc., etc. Illustrated by upwards of fourteen hundred Engravings. Fifth Edition, greatly enlarged and thoroughly revised. 2 Volumes. Philadelphia: Henry C. Lea. 1872.

When the University of Oxford conferred the honorable degree D.C.L. on Prof. Gross, it was a tribute not only to him personally for his great attainments, but an acknowledgment of the claims of American Surgery through him, its greatest master, of whom we all feel proud. It is a matter of regret to us that we are unable to devote space enough to review fully this great work on surgery. It has for many years been the standard authority in this country, and in bringing out the fifth edition, "greatly enlarged and thoroughly revised," the author has rendered a service to his professional brethren that cannot fail to be productive of the greatest benefit to suffering mankind. The work is "a systematic and comprehensive treatise on the art and science of surgery," considered in the broadest sense. The author has spared no labor to make this edition the most complete work for the guidance of the surgeon in the daily routine of practice. When we remind the reader that the author has brought his extensive reading, reflection, and large and ripe personal experience fully to the task, what more can we say in favor of the work? There is one feature which deserves especial mention, and it stands in the bolder relief when compared with many of the works issued from the press during the past few years: we allude to the thorough honesty and integrity of our author in discussing the merits of the contributions of other surgeons. Full credit is given to his *confrères* whether he agrees with them or not; where he differs with them he certainly gives good reasons for so doing, and states his points of difference in a straightforward, manly way. The chapters devoted to venereal and skin-diseases only treat of these affections in a general manner. In treating of chancre and chancroid, the author regards with considerable distrust the nice distinctions made by syphilographers during the past twenty years. He is a unicist in the fullest sense of the term, and argues well from that standpoint. His great personal experience and capacity to judge these questions being admitted, his views certainly deserve attention. He has very wisely refrained from any learned attempt to trace the history of the disease, and kindly spared us any "theory of syphilitic infection;" he has, however, as in treating of other surgical diseases, given a clear and good account of venereal affections, and indicated a rational course of treatment. The few pages devoted to dermatology refer mainly

to warts, corns, horny excrescences, the so-called sebaceous tumors, and malignant growths of the cutaneous tissues—many of which require surgical interference. In treating of venereal and skin-diseases, the author has done so in order to make complete his work on surgery and surgical diseases. He does not for a moment desire the reader to believe that he has given more than a general outline of the course of these diseases and their appropriate treatment. It is not intended that these chapters shall take the place of the special works devoted to these branches of our art. The work consists of nearly twenty-three hundred pages, large octavo. It is fully illustrated, and well printed. We have only to add that the publisher has carefully performed his portion of the work.

ARSENAL DE LA CHIRURGIE CONTEMPORAINE; DESCRIPTION, MODE D'EMPLOIE, ET APPRÉCIATION DES APPAREILS ET INSTRUMENTS en usage pour le Diagnostic et le Traitement des Maladies Chirurgicales, l'Orthopédie, la Prothèse, les Operations Simples, Générales, Spéciales, et Obstetricales. Par G. GAUJOT et E. SPILLMAN. Avec 1855 figures intercalées dans le texte. Tome I. par G. Gaujot; Tome II. par E. Spillman. Paris: J. B. Baillière et fils. 1872.

THE first volume of this work appeared in 1867. The author, M. Gaujot, being unable, on account of other duties, to continue the work he had so well commenced, the completion was entrusted to his successor in the department of operative surgery at Val-de-Grace, M. Spillman. The two volumes form a complete arsenal of all surgical instruments, including orthopedic apparatus, electrical and galvanic batteries, artificial limbs, obstetrical instruments; and in fact all descriptions of apparatus used in the surgical, medical, and mechanical treatment of disease. There is, of course, a preference shown for French instruments, although much attention has been manifested towards apparatus and instruments from other countries. Many old and obsolete instruments are fully described, and will serve the good purpose of preventing others from reviving them as new instruments, or of spending much time in going over ground that has, most probably, been well traversed by preceding surgeons. The work is fully illustrated with well executed woodcuts, and the word descriptions are ample. The volumes will be found of great value to the surgeon as well as the instrument-maker. A careful reference to a work of this character will doubtless spare many authors of "new instruments" much time and labor in the perfection of many of their peculiar ideas regarding the wants of the profession in this department of science.

A TREATISE ON THE DISEASES OF INFANCY AND CHILDREN. Second Edition. Enlarged and thoroughly revised. By J. LEWIS SMITH, M.D. 8vo., pp. 741. Philadelphia: Henry C. Lea. 1872.

IT is gratifying in looking over the second edition of this excellent work to find that the author has conscientiously gone well over the ground of his

former labors, and modified and improved wherever there was an opportunity, in accordance with the most recent and most reliable authority for so doing. Many important additions have been made in the list of diseases, and, as stated in the preface, "many new formulæ which experience has shown to be useful have been introduced; portions of the text of a less practical nature have been condensed; and other portions, especially those relating to pathological histology, have been rewritten to correspond with recent discoveries." The diseases incidental to childhood form a considerable part of the physician's practice. There is no work that we can recommend with more thorough satisfaction than the volume before us. While we acknowledge the excellence of the book, we beg to remind Dr. Smith that the peculiar malformation of the upper incisor teeth and the interstitial keratitis, so frequently found in those suffering from congenital syphilis, as described by Mr. Jonathan Hutchinson, of London, needs no more evidence than has already been adduced. The book is illustrated, well printed, and reflects much credit on the author as well as the publisher.

THE QUESTION OF QUARANTINE. THE NATURE AND PREVENTION OF COMMUNICABLE ZYMOTIC DISEASES. By ALFRED L. CARROLL, M.D. 8vo., pp. 22. 1872. From the author.

THE question of quarantine is one of great interest to the profession as well as the public. Dr. Carroll in his pamphlet discusses in an exceedingly able manner the question of the possibility of preventing the introduction of any disease by the quarantine of infected vessels, their crews, passengers, and cargoes, or of infected persons and merchandise. The question of quarantine in New York has attracted more than ordinary attention during the past two years, owing to the disgraceful prostitution of the office on the part of the late notorious health-officer. Under the present management of Dr. Vanderpoel, who brings rare qualities to the task, much will be done, not only to secure the best results, but to throw light on many questions still unsettled regarding the expediency of certain restrictions in controlling and preventing the introduction, into our ports, of communicable zymotic diseases.

THE MEDICAL REGISTER OF NEW YORK AND VICINITY for the Year commencing June 1, 1872. Published under the Supervision of the New York Medico-Historical Society A. E. M. Purdy, M.D., editor. New York: Wm. Wood & Co. 1872.

THE Register, notwithstanding the many unkind remarks that have been made reflecting on the responsibility of the gentlemen who have guided its fortunes, has now been in existence for ten years. It has undoubtedly done much good in determining the *status* of many doubtful practitioners who have misled both the public and the profession, regarding their right to be known as honorable and properly qualified practitioners of medicine.

The list includes all who have been regularly graduated in medicine, dentistry, and veterinary surgery, and who live up to the code of medical ethics adopted by the American Medical Association. Full information is given of all medical societies in the State of New York, and of many in the neighboring States of Connecticut and New Jersey. Without any desire to be critical, there is one feature in the work that will most probably be noticed by many subscribers, while page after page is taken up with notices and accounts of all sorts and descriptions of societies utterly unknown beyond the residence of the member who invites six or eight of "his friends" to meet for "social improvement," scarcely one page is devoted to the medical journals published in New York. The editor will doubtless correct this error when he has had a little more experience. As a directory the work will prove serviceable.

A TREATISE ON DISEASES OF THE BONES. By THOMAS M. MARKOE, M.D. 8vo., pp. 416. New York: D. Appleton & Company. 1872.

IF Dr. Markoe had followed the precedent of the illustrious Syme and published, in the form of contributions, such of his cases as were of special interest, including the cases which he had an opportunity of sharing with his friends, he would have rendered a service to our knowledge of diseases of the bones and for which we should be glad to acknowledge our indebtedness, and he would, at the same time, have been spared criticism, which the volume before us invites to no small extent. The volume contains, in a condensed form, the views of Stanley, Paget, Billroth, and other Continental surgeons, as well as Dr. Markoe's personal experience at the New York Hospital, including many interesting cases that came under the care of his associates. The work scarcely deserves the name of a treatise; many of the subjects are treated of in too desultory a manner. The best chapter in the work is that on necrosis. While the doctor displays a good knowledge of this branch of surgery, he, we think, errs in regarding necrosis as a disease *per se*. To any one versed in the surgery of the bones and cognizant of the labors of American surgeons in this branch of our art, the omission of any reference to the real labors of Dr. Jas. R. Wood, Sayre, Carnochan, and others, will seem at least strange, and with good students will tend to lessen the value of the work probably more than anticipated by the author. It is a matter of regret, and to none more than those who personally know of the author's ability, that he should not have written a work giving the results of original investigations rather than an epitome of what is already known to most surgeons. To students and practitioners who are unable to procure many works on this subject the volume will prove serviceable. The work is well illustrated and well printed.

Therapeutical Notes.

Ichthyosis treated by Ointment of Sulphate of Copper.—M. A. Lallier relates the case of a man aged 72, a patient in an asylum, under the care of M. Dumesnil, suffering from dementia, who was attacked with ichthyosis of the nose and face. Various remedies—ointments of *huile de cade*, of sulphur, white precipitate and other mercurial preparations, arsenic given internally, etc., were used without success. An ointment of four parts of sulphate of copper in thirty parts of benzoated lard was then prescribed. Under its use the cutaneous affection disappeared in about three weeks. It returned, however, a month later, and was again removed by the same remedy, which this time was persisted in, with the result of rendering the patient free from the disease up to the date of the report—nearly two years after the remedy was first applied.—*Journal de Médecine de Bruxelles*, May, 1872.

The Use of Iodoform Ointment in the Treatment of Onychia and Many Forms of Skin-Disease.—M. Tillaux, of the Hôpital St. Louis, uses in the treatment of onychia, whether syphilitic or otherwise, an ointment composed of Iodoform ʒ j.; Ung. simplicis, ʒ j. A few applications, it is claimed, will, at times, cure cases that have resisted all other remedies. This ointment is also recommended in some of the more inveterate forms of skin-diseases—such as lepra, psoriasis, chronic eczema, etc.—and has been found useful as a local anæsthetic for the relief of pain, whatsoever its origin, and in all forms of neuralgia. In this latter affection iodoform has been administered internally in two-grain doses three times a day, and with great success, especially when combined with iron.—*Paris Correspondence Medical Times and Gazette*, July 27, 1872.

On the Treatment of Acne Punctata by the Internal Use of Glycerine.—M. Gubler, at the Hôpital Beaujon, has had under his care a young girl, about 16, suffering from rheumatism. She was also the subject of acne punctata, which had resisted the usual means employed in such cases. M. Gubler, recalling to mind the analogy that exists between the therapeutic action of glycerine and oils, was induced to try the former, and administered it in this case in doses of a tablespoonful morning and evening, and in the course of a few days

the acnoid spots had all but disappeared, and the patient, being well of her rheumatism, left the hospital delighted with the double cure. M. Gubler's theory of the treatment was that glycerine, being a solvent of the sebaceous matter contained in the pimples, rendered it more fluid, and consequently more easy to be eliminated. Arguing from this, he thought advantage might be taken of this solvent property of glycerine for the removal or softening of the cerumen which sometimes accumulates to such an extent in the ear as to cause a certain degree of deafness. And, lastly, M. Gubler said that glycerine was a most useful therapeutic agent, and ought to be more generally employed in medicine. It is invaluable in constipation, and he preferred it to the more nauseous and irritating substances administered in such cases.—*Paris Correspondence Medical Times and Gazette*, July 27, 1872.

Treatment of Syphilis by Means of Hypodermic Injections of Corrosive Sublimate in the Form of a Chloro-Albuminous Solution.—Dr. Staub, of Paris, has published, under the above head, the results of a most interesting series of experiments. The object of Dr. Staub was to avoid the local accidents caused by hypodermic injections of sublimate, and also to be able to employ stronger doses. This he effected by means of an albuminous solution of sublimate in alkaline chlorides, according to the principles laid down by Gubler, Mialhe, Barensprung, etc. The formula for injection deserves to be carefully noted: Sublimate and chloride of ammonia, of each 20 grains; chloride of sodium, about 62 grains; distilled water, 20 grains. After filtration the whole is mixed up with an albuminous solution (white of an egg, water 4^1 drachms). This mixture produces no local inconvenience; it contains 5 milligrammes (about $\frac{1}{13}$ grain) to every 20 drops. The results of treatment, states Dr. Staub, have been very favorable. In the 44 cases related the duration of treatment varied from seventeen to thirty-four days, with one centigramme ($\frac{1}{6}$ grain) of sublimate injected each day. The author comes to the conclusion that the hypodermic method, with the chloro-albuminous solution of sublimate, can and ought to be transformed into a general mode of treatment of syphilis; that it will take the first place in the therapeutics of syphilis; and that it may be applied to all cases (syphilitic or not) where a mercurial treatment is indicated.—*The Lancet*, July 20, 1872.

Extractum Asplenii.—This is a powerful bitter tonic and antiperiodic, possessing many of the virtues and properties of quinine. In cases, therefore, in which that remedy fails, or is

name of Carmichael, was born towards the close of the last century, and died at his house, in Dublin, on the 6th of August last. He was nearly related to Sir Robert Carmichael, M.D., of Dublin. Mr. Carmichael received his non-medical education at Trinity College, Dublin, where he was graduated as a Master of Arts. In 1812 he became a member of the Royal College of Surgeons, and eight years later was elected a Fellow of the same body. He served for some time with distinction in the army. He subsequently settled in Dublin, and, although engaged in a very large practice, contributed many valuable papers to the literature of the profession. Among these may be mentioned an *Essay on Turpentine in Venereal Iritis*, another on the *Efficiency of Pressure in the Arrest and Cure of Venereal Phagedænic Ulceration* (originally published in the Dublin *Journal*), and on the *Position of the Placenta in the Womb during Gestation*, and on the *Purulent Ophthalmia of Infants*. His writings are characterized by much strength of reasoning and power of expression.

WILLIAM TAYLOR, M.R.C.S.

THIS able practitioner died on the 15th of June, in his sixty-seventh year. His death occurred from the exhaustion induced by a fracture of the leg sustained in a street accident. He was a pupil of Abernethy and Sir Astley Cooper, and became a member of the Royal College of Surgeons in 1830. Besides his general practice he was Surgeon to the Metropolitan Police-force, and Surgeon to the Cholera Hospital. He published in 1850 a work entitled *New and Successful Treatment of Febrile and other diseases through the Medium of the Cutaneous Surface, illustrated with cases*, and in 1851 he read before the Medical Society a paper on the *Importance of the Skin of the Human Economy, especially in the Treatment of Scarlatina, Typhus, and Measles.*

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DR. M. H. HENRY will deliver during the coming winter months, a course of clinical lectures on Venereal, Genito-Urinary and Skin Diseases at the New York Dispensary.

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INDEX TO VOL. III.

PAGE

ABSORPTION of Gray Ointment and of Corrosive Sublimate through the Unbroken Skin. By I. Neumann..... 52
Acne Punctata, Treatment of, by the Interhal Use of Glycerine. By Gubler..... 370
" Pathology and Treatment of. By Milton..... 374
" Faciei, Treatment of. By Hebra..... 89
ACTON, WILLIAM. The Modern Treatment of the Advanced Stages of Constitutional Syphilis..... 333
Alopecia, as an Accident of Secondary Syphilis. By A. Fournier..... 347
" by E. Wigglesworth. Book Notice..... 90
ALTHAUS. Neuro-Syphilitic Affections..... 326
Arsenal de la Chirurgie Contemporaine, by G. Gaujot and E. Spillman. Book Notice..... 379

BEARD, GEORGE M. Electricity in the Treatment of Diseases of the Skin..... 20
Bladder, Extraction of a Cedar Pencil from the Female. By Phillips... 176
" Extroversion of..... 177
" Catarrh of the. By Kraus..... 361
Boils and Carbuncles of the Face, Causes of Danger accompanying. By Reverdin..... 72
Brockedon's Compressed Bicarbonate of Soda Pills, and Bicarbonate of Potass Pills..... 372
Bubo, Subcutaneous Injection of. By Wertheim..... 78
Buboes, Treatment of Chancrous. By De Smet..... 86
Bubo, Abortive and Methodical Treatment of. By Zeissl..... 280
" Mixed. By P. Diday..... 247

Cancer in Males and Females. By Le Conte..... 276
Catheterism; Syncope; Embolism; Death. By Lys..... 66
" Sitting Posture in Prolonged. By Sers..... 73
" Urethral Fever following. By Banks..... 67
Calomel Injections, Treatment of Syphilis by. By Zambon..... 87
" Vapor Baths, Cautions to be observed in the Use of. By Lee. 185
Chancre, Powdered Camphor in Phagedenic. By Netler..... 86
Chloral, Therapeutic Uses of Hydrate of. By Liebreich..... 282
Chlorodyne..... 373
CLARKE, J. LOCKHART. Case of Syphilitic Disease of the Brain..... 344

PAGE
Condylomata, Removal of Non-Syphilitic. By Duhring..... 288
Contagious Diseases, Nature and Treatment of, by J. Morgan. Book Notice..... 285
Copaiba, Remarks on Balsam of—Tested Copaiba. By A. Fumouze..... 289
" A New Mode of Administering. By Wehner..... 283
Corns, Removal of..... 373
CROSS, T. M. B. Clinical Observations upon Syphilitic Diseases of the Nervous System..... 216
CUMMISKEY, J. Case of Psoriasis of the Nails..... 318

Dactylitis Syphilitica, Case of. By E. Wigglesworth..... 142
" " Case of Congenital. By T. Curtis Smith..... 33
Dengue, Sequelæ of. By Charles..... 357
DEVERGIE, A. Note on Tricoptilose..... 254
De l'Herpès Généralisé Fébrile, by H. Coutagne. Book Notice..... 90
DIDAY, M. P. Mixed Bubo..... 247
Depurative Syrup of Bitter Orange-Peel, with Iodide of Potassium. By Laroze..... 372
Diseases of the Nervous System, by W. A. Hammond. Book Notice..... 93
Diseases of Women, by T. G. Thomas. Book Notice..... 188
Diseases of Infancy and Childhood, by J. L. Smith. Book Notice..... 379
Diseases of the Bones, by T. M. Markoe. Book Notice..... 381
Doctor in Medicine, etc., by S. Smith. Book Notice..... 286
DWYER, JOHN. Case of Epithelioma of Penis..... 37

Earth as a Topical Application in Surgery, by A. Hewson. Book Notice. 284
Eczema: its Nature and Treatment, by Tilbury Fox. Review..... 39
" of the Hands, Treatment of. By Hebra..... 89
Editorial. Boston Dispensary for Skin Diseases..... 191
" The Advancement of Dermatology..... 191
" Philadelphia Dispensary for Skin Diseases..... 192
Editorial..... 96
Electricity in the Treatment of Diseases of the Skin. By George M. Beard..... 20
Elephantiasis of Scrotum, Successful Operation for. By Corbett..... 175
" Græcorum. By Benson..... 67
" of Left Lower Limb and Right Labium Externum. By Broca..... 357
Emergencies, and How to Treat Them. By J. W. Howe. Book Notice.. 94
Epithelioma of Penis, Case of. By John Dwyer..... 37
Erysipelas Ambulans vel Erraticum. By Saunders..... 356
Erythema Multiforme of Hebra. By E. Lipp..... 49
Erysipelas, Subcutaneous Injection of Morphia in Traumatic. By Estlander..... 83
Exophthalmos occasioned by Syphilis. By Gregorie..... 73
Extractum Asplenii..... 371
Eye, General Syphilitic Inflammation of. By Delafield..... 68

Favus in a Canary. By Wilson..... 359
Favus Treated by Sulphur and Charcoal Ointment. By Pironde..... 87

PAGE

Ferruginous Syrup of Bitter Orange-peel and Quassia with Proto-iodide of Iron..... 372
FOX, TILBURY. Note on a Diagnostic Sign of Phtheiriasis..... 1
FOX, TILBURY. Ringworm in Schools..... 161
FOX, WILSON. Syphilitic Affections of the Lung..... 54
FOURNIER, ALFRED. Alopecia as an Accident of Secondary Syphilis.. 347
Fractures and Dislocations. By F. H. Hamilton. Book Notice..... 188
FUMOUZE, ARMAND. Remarks on Balsam of Copaiba—Tested Copaiba. 289

Galvano-Cautery, Amputation of Penis. By Zielewicz..... 87

Hæmophilia. By J. W. Legg. Book Notice..... 189
HALE, LORENZO. Case of Syphilitic Paraplegia..... 312
Hand-book of Therapeutics. By S. Ringer. Book Notice..... 91
HAND, H. C. Case of Rapid Syphilis, accompanied by Capillary Bronchitis and Lobular Solidification of Lungs..... 35
HENRY, M. H. Clinical Observations on the Dementia and the Hemiplegia of Syphilis..... 5
HENRY, M. H. On the Treatment of Venereal Diseases, as pursued in the Vienna Hospital, under the Direction of Prof. Von Sigmund, including all the Formulæ..... 97
Herpes Impetigiginiformis..... 271
Herpes Zoster, Pathology of. By Wyss..... 272
Human Physiology. By J. C. Dalton. Book Notice..... 94
Hypodermic Injections of Corrosive Sublimate in the form of a Chloro-albuminous Solution in the Treatment of Syphilis. By Staub... 371

Ichthyosis Treated by Ointment of Sulphate of Copper. By Lallier... 370
Impetigo Contagiosa. On the So-called Parasite said to have been Discovered in. Review..... 315
Impetigo (Faciei) Contagiosa, and its Fungus. By M. Kohn..... 264
Insanity Dependent upon Syphilis. By Wright..... 367
Intracranial Disease Cured by Iodide of Potassium. By Moxon..... 79
Iodine, Minute Appearances in the Tissues on Application of the Tincture of Schede..... 274
Iodide of Iron Pills..... 372
Iodoform Ointment in the Treatment of Onychia and many forms of Skin Disease. By Tillaux..... 370
Itch in Children, Treatment of. By Monti..... 186

KAPOSI. Idiopathic Multiple Pigment-Sarcoma of the Skin..... 320
Kidinga Pepo. By Christie..... 178
KOHN, EMANUEL. Remarks upon the Pathology and Therapeutics of the Ulcus Serpiginosum..... 44

Leprosy, Question of Contagiousness of..... 274
Light, Action of, in Skin Diseases. By Potter..... 275
LIPP, EDWARD. On the Erythema Multiforme of Hebra..... 49
Liver, Acute Atrophy of, as a Complication of the Inception of Secondary Syphilis. By Goodridge..... 364

PAGE

Localized Electrization. By G. B. Duchenne. Book Notice..... 92
Lupus Erythematosus, Treatment of. By Nunn..... 83
" Exedens Treated by Large Doses of Iodide of Potassium. By Gay..... 185
" a Form of, similar to Epithelioma. By Busch..... 274

Madura Foot. By Hogg..... 178
Mangham's Solution of Iron..... 372
Measles, German. By Heggie..... 360
Medical Register of New York and Vicinity. By A. E. M. Purdy. Book Notice..... 380
Mental Diseases, Relations of Syphilis to. By Wille..... 365
Molluscum Contagiosum, Case of. By Liveing..... 268
Muriate of Lime, Therapeutic Actions of. By Begbie..... 375

Nævus, an Extensive. By Hubbard..... 276
" of Face, successful Treatment of a large Congenital. By Bellamy..... 82
" Ligature of. By Smith..... 373
Nerve, Atrophy of Papilla of Optic. By Galezowski..... 362
Nerves, connection of, with Pigment Cells..... 180
NEUMANN, ISIDOR. On the Absorption of Gray Ointment and of Corrosive Sublimate through the Unbroken Skin..... 52
Neumann on Skin Diseases. Review..... 154
Neuralgia, and the Diseases that Resemble it. By P. E. Anstie. Book Notice..... 92
Neuro-Syphilitic Affections. By Althaus..... 326
Notes on Syphilis. By S. M. Bradley. Book Notice..... 382

Oak-Bark Wash in Sumac Poisoning. By Risk..... 87
Obituary. LANGSTON PARKER..... 95
" HENRY D. BULKLEY..... 190
" FREDERICK C. SKEY..... 383
" HUGH CARMICHAEL..... 383
" WILLIAM TAYLOR..... 384
Obstetric Memoranda. Book Notice..... 288
OLAVIDE, JOSÉ E. Parasitic Vegetable Growths..... 258
Onychia, Iodoform Ointment in the Treatment of. By Tillaux..... 370
Orchitis, Treatment of. By Hutchinson..... 85
Ozokerit. By H. S. Purdon. Book Notice..... 286

PACKARD, JOHN H. Case of Venereal Disease, presenting some anomalous Features..... 145
Parasitic Vegetable Growths. By J. E. Olavide..... 258
" Growths as a Cause of Disease. By Olavide..... 358
Pathology and Morbid Anatomy. By T. H. Green. Book Notice..... 189
Pellagra, the Cause of. By Lussacra..... 362
Penis, Amputation of, by Galvano-Cautery. By Zielewicz..... 87
" Case of Epithelioma of. By John Dwyer..... 37
PEUGNET, EUGÈNE. Veratrum and Veratria as Parasiticides..... 209

PAGE

Phimosis produced by Chancroidal Ulcers, Prophylaxis and Treatment of. By R. W. Taylor..... 295
Phtheiriasis, Note on a Diagnostic Sign of. By Tilbury Fox..... 1
Phosphorus in Skin Diseases. By Eames..... 81
POOLEY, T. R. Case of Syphilitic Choroiditis, with Circumscribed Exudation in the Choroid..... 213
Poisons. By T. H. Tanner. Book Notice..... 288
Practical Therapeutics. By E. J. Waring. Book Notice..... 93
Principles and Practice of Physic. By Sir. T. Watson. Book Notice... 286
" " " " *Surgery.* By J. Ashhurst, Jr. Book Notice. 189
Protection acquired by the Human Skin and other Tissues against the Action of certain Animal Poisons, after repeated Inoculations. By White..... 71
Psoriasis of the Nails. By J. Cummiskey..... 313

Rectum, Tertiary Ulceration of—Colotomy. By Maunder..... 265
Respiratory Murmurs. By J. R. Leaming. Book Notice..... 382
Restorative Medicine. By T. K. Chambers. Book Notice..... 284
Retention of Urine in Impermeable Strictures, Treatment of. By O'Connell..... 187
Retinitis associated with Syphilis. By Allbutt..... 63
Rheumatism, Dermoid Complications in. By Bailey..... 73
Ricord's latest views on Syphilis..... 336
Ringworm in Schools. By Tilbury Fox..... 161
" of Cattle. By H. M. Tuckwell..... 166
Rodent Cancerous Ulceration involving Upper Eyelid and Orbit, successful operation for Removal of..... 77
Rotheln. By Heggie..... 360

Santonin as a Parasiticide. By Page..... 88
Scabies in a Cat. By Wilson..... 359
Scarlet Efflorescence on the Skin, produced by External Application of Belladonna. By Wilson..... 274
Scars, the Physiology and Pathology of. By G. J. Swerchesky..... 193
Sclerema Adultorum. By Neumann..... 183
Sedative Syrup of Bitter Orange-Peel with Bromide of Potassium. By Laroze..... 372
Skin Diseases, etc. By Tilbury Fox. Review..... 89
Skin Diseases, Action of Light in. By Potter..... 275
Skin Diseases, Treatment of Chronic. By E. D. Mapother. Book Notice..... 288
Skin, Idiopathic Multiple Pigment-Sarcoma of the. By Kaposi..... 320
Small-pox, Use of Carbolic Acid to prevent Pitting after. By Scott.... 88
" Hemorrhagic, associated with Tetanus. By Gayton..... 266
" Xylol in the Treatment of..... 187
SMITH, T. CURTIS. A Case of Congenital Dactylitis Syphilitica..... 33
Strictures, the Pathogenesis of, and the Minute Anatomy of the Human Urethra. By Stilling..... 275
Strictures of the Urethra of Extreme Calibre. By F. N. Otis. Book Notice..... 285

PAGE
Styptic Cotton. By Rohland 283
Sumac Poisoning, Oak-Bark Wash in. By Risk 87
SWERCHESKY, G. J. Contributions to the Physiology and Pathology of Scars 193
Syphilitic Disease of Brain. By J. L. Clarke 344
" Growth of Right Cerebral Hemisphere. By Dowse 267
" Choroiditis. By T. R. Pooley 213
" Diseases of the Nervous System. By T. M. B. Cross 216
Syphilitic Blood-Corpuscles of Lostorfer. On the So-called. Review 228
Syphilitic Amblyopia and Amaurosis. By Galezowski 75
" Affections of the Lung. By Wilson Fox 54
" Paraplegia. By L. Hale 312
" Sore on the Female Nipple. By Clarke 362
" Cirrhosis and Amyloid Disease of Liver and Kidneys. By Liveing 177
Syphilis, Treatment of, by Calomel Injections. By Zambon 87
" inoculated on the Hand. By Hutchinson 66
" and Foundling Hospitals in Russia. By Valcourt 74
" treated by Iodide of Ammonium. By Hill 78
Syphilis. By C. R. Drysdale. Book Notice 287
" Treatment of, by Hypodermic Injection of Mercury 277
" its Relations to Mental Diseases. By Wille 365
" the Modern Treatment of the Advanced Stages of Constitutional. By W. Acton 333
" Insanity Dependent upon. By Wright 367
" Treatment of Hereditary. By Steiner 375
" Ricord's Latest Views on 336
" Case of Rapid, accompanied by Capillary Bronchitis and Lobular Solidification of Lungs. By H. C. Hand 35
" Review of a Case of Alleged Transmission by the Milk and Saliva 240
" Treatment of, by Hypodermic Injections of Corrosive Sublimate in the form of a Chloro-albuminous Solution. By Staub .. 371
" Clinical Observations on the Dementia and the Hemiplegia of. By M. H. Henry 5
Syphilis, Diagnosis of, by the Microscopic Examination of the Blood. Review 148
" Hereditary. By Hutchinson 363
" Treatment of, by Hypodermic Injection of Corrosive Sublimate. By Taylor 80
System of Surgery. By S. D. Gross. Book Notice 378

Tattooed Man, The 181
TAYLOR, R. W. On some Practical Points in the Prophylaxis and the Treatment of the Phimosis produced by Chancroidal Ulcers 395
Testes, Tuberculo-Syphilitic Disease of. By Nunn 269
Testis, Chemistry of the. By Treskin 180
The Question of Quarantine. By A. L. Carroll. Book Notice 380
Tricoptilose. By Billi 365
Tricoptilose. By A. Devergie 254

PAGE

TUCKWELL, Henry M. The Ringworm of Cattle..... 166
Tuberculo-Syphilitic Disease of the Testes. By Nunn..... 269
Tumors of Leg, Doubtful. By Hutchinson..... 177
Turpentine, Therapeutic Actions and Uses of. Begbie..... 374
Typhoid Fever, the Blue Stains of..... 181

Ulcus Serpiginosum, Pathology and Therapeutics of. By E. Kohn..... 44
Urethral Fever Following Catheterism. By Banks..... 67
Urethral Rheumatism. By Bond..... 76
Urethra, Operation for Loss of a Large Portion of. By Thompson..... 72

Vaccinal Syphilis, the Recent Literature of. Review..... 152, 318
Vaccination, Transmission of Syphilis by. By Köbner..... 65
Venereal Disease, Case of, presenting some Anomalous Features. By J. H. Packard..... 145
Venereal Diseases, Treatment of, as pursued in the Vienna Hospital, etc. By M. H. Henry..... 97
Veratrum and Veratria as Parasiticides. By E. Peugnet..... 209

WIGGLESWORTH, EDWARD. Case of Dactylitis Syphilitica..... 142
Women's and Children's Diseases. By E. Dillenberger. Book Notice... 94

Xylol in Treatment of Small-Pox..... 187

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